

**A COMPARATIVE STUDY TO EVALUATE THE  
EFFECTIVENESS OF LAVENDER OIL SITZ BATH AND COLD  
GEL PACK APPLICATION ON EPISIOTOMY WOUND AMONG  
POST NATAL MOTHERS IN PRIMARY HEALTH CENTRE AT  
TRICHY DISTRICT, DURING THE YEAR  
2016-2018.**

**M.Sc (NURSING) DEGREE EXAMINATION  
BRANCH III- OBSTETRICAL AND GYNAECOLOGICAL NURSING  
INDIRA COLLEGE OF NURSING  
KONALAI, TIRUCHIRAPPALLI**



**University Seal:**

*DISSERTATION SUBMITTED TO*  
**THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY, CHENNAI**  
In partial fulfilment of requirement for the degree of  
**MASTER OF SCIENCE IN NURSING**

**OCTOBER – 2018**

**Acomparative study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers in primary health centre at Trichy District.**

**Examination:** M.Sc (Nursing) Degree Examination

**Examination month and year:** October 2018

**Branch & Course:** III - Obstetrics and Gynaecological Nursing

**Register No:** 301623251

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**MASTER OF SCIENCE IN NURSING-OCTOBER 2018**

## **BONAFIDE CERTIFICATE**

This is to certify that the dissertation entitled “**A comparative study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers in primary health centre at trichy district**” is a bonafide research work done by **Mrs. Mablevinolia. E, II year MSc (N), Indira College of Nursing, Tiruchirappalli** under the guidance of **Associate Professor /Professor Mrs. Jacinta, MSc. (N), Obstetrics and Gynaecological Nursing** in partial fulfillment of the requirements for the Degree of Master of Science in Nursing under Tamilnadu Dr.M.G.R. Medical University.

**Principal**

Place : Trichy

Date : 10.08.2018

## **DECLARATION**

I here declare that the present dissertation titled“**a comparative study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers in primary health centre at trichy district.**” Outcome of the original research work undertaken and carried out by me,under the guidance of research guide **Prof. Mrs. Sherene G. Edwin,M.Sc(N),PhD(N)**, Principal, and **Mrs. MOHANAMBAL M.Sc(N)**, vice principal, Indira college of Nursing, konalai.

I hereby declare that the material of this has not found in any way, the basis for the award of any degree / diploma in this university or any other university.

**301623251**

## ACKNOWLEDGEMENT

I praise the almighty **God** for his grace and abundant blessings he showered upon me. His immiscible presence and guidance has helped me to complete the project successfully.

I extend my sincere gratitude to our chairman **Mrs. Logambal, Ex. MLA**, who boosted me to get along with my studies and who stands as a source of inspiration.

I express my gratitude to my fabulous guide, **Prof. Mrs. Sherene G. Edwin, M.Sc (N), PhD(N)**, Principal, Indira college of nursing, who has been corrected me from beginning of my study and give an opportunity, constant encouragement and valuable suggestions to complete this course. Above all and the most needed she provided encouragement and was very approachable at the need of the hour.

I am greatly indebted to **Mrs. Mohanambal M.Sc (N)**, vice principal and HOD of child health nursing, who has been offered support with her scholarly guidance at every stage of my work and provided me with her insight, suggestions and inspirations throughout my study.

I wish to thank the **Block Medical Officers** in Trichy District and **Dr. Meena Ramkumar MBBS, DGO**, who granted permission to do this project and provided all facilities in the Hospital for data collection process.

I express my special thanks to **Mrs. Jacinta M.Sc (N)** Obstetrical and Gynaecological Nursing department, who worked behind the screen, imparted the knowledge regarding project and contribution helped me to complete my project successfully.

My cordial gratitude to **Mrs. Latha M.Sc (N)**, HOD of Community Health Nursing who helped for my data collection process and her excellent advice, support in analyze the data of my study.

From the bottom of my heart I spell out thanks to Mrs. Peula Catherine M.Sc (N), and Mrs. Rusha M.Sc (N), Assistant professors in Medical Surgical Nursing for their excellent, extraordinary guidance and correction, warm encouragement through the entire journey of my study.

I wish to extend my thanks to my statistician **Mr. Senthil Kumar**, for his immense correction and clarification in analyze the data of my study.

I also extend my immeasurable appreciation and deepest gratitude to the **Nursing experts** who are validate the content and provide their valuable suggestions for my study.

I express my thanks to **Mrs. Janci Rani**, librarian, **Ms. Sheeba**, **Mrs. Sagaya Mary**, who helped to refer the books from library and to use internet services.

I also accord to respect and gratitude to the **faculties** of Indira College of Nursing for their timely support and assistance throughout the period.

At this juncture, I like to disclose the continuous prayer, unconditional love, funding, encouragement, blessings, security, complete support of my lovable mother, **Mrs. Philominepushpamary**, father **Mr. Eirudaya raj**, my husband **Mr. Sthanislas**, my sister, my Grand mother and my childrens **Nevin**, **Delsy** and **all my colleagues** who helped me throughout my studies and give me courage to break the barriers of inability.



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8.	Plagiarism form
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10.	Snap shot and CD-ROM

### LIST OF ABBREVIATIONS

SHORT FORMS	ABBREVIATIONS
N	Significant
NS	Not significant
FIG	Figure
B.SC(N)	Bachelor of science in nursing
M.SC(N)	Master of science in nursing
M.Phil	Master of philosophy
Ph.D	Doctor of philosophy
MBBS	Bachelor of medicine, Bachelor of surgery
DGO	Diploma in gynecology and obstetrics
S.NO	Serial Number
F	Frequency
%	Percentage
SD	Standard deviation
REEDA	Redness, Edema, Ecchymosis, Discharge, Approximation of wound healing.
BMI	Body mass index

## ABSTRACT

A study was to assess the effectiveness of hot application and cold application on episiotomy wound among postnatal mothers in trichy. The objective was assess the level of episiotomy wound among postnatal mothers after lavender oil sitz bath and cold gel pack application, compare the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound and find out the association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application. In this study the hypothesis at  $p < 0.05$  level of significant. Imogene king goal attainment theory was used for conceptual framework. The research design used for the current study was quasi experimental design. A total of sixty postpartum women (experimental group-1 and experimental group -2 each group consisted of 30 women) were recruited conveniently for this study from primary health centre at trichy district. In this study interventions used in applying hot sitz bath with lavender oil for experimental group-1 and applying cold application with cold gel pack for experimental group-2 for 15-20 minutes twice a day for 3 consecutive days given. Tools used for data collection consisted of interviewing sheet, the standardized REEDA scale. Finally the statistical analysis revealed that, the post test mean difference was 3.100. The paired t test value showed statistically significant difference in episiotomy wound ( $t=2.73$  and  $p < 0.0001$ ).there was a significant association between place of residence, monthly income and food habit. Finally the study concluded that, the lavender oil sitz bath is an effective intervention than cold gel pack application to enhance the level of episiotomy wound.

# **CHAPTER-I**

## **INTRODUCTION**



## CHAPTER-I

### INTRODUCTION

“Sometimes the strength of motherhood is greater than natural laws”

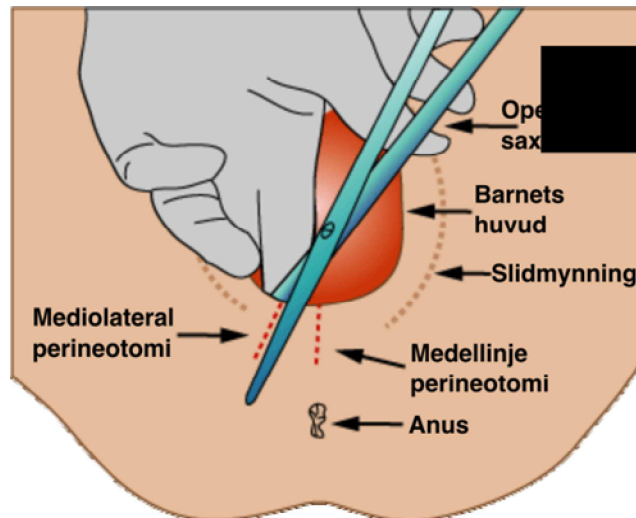


Figure: 1 Episiotomy

### BACKGROUND OF THE STUDY

Motherhood is a beautiful process whereby the mother safely delivers a child. It is the magic of creation. Care must be given to ensure safe childbirth. Safe motherhood initiative announced in 1987 had set targets to reduce maternal mortality rate by 50% in one decade.

Labour involves a series of changes in the genital organ associated with regular painful uterine contractions with cervical changes to expel the viable products of conception out of the womb through the vagina into the outer world. Labour passes mainly through four stages of which the first stage lasts for 12 hours in primigravida and 6 hours in multipara. The second stage lasts for 2 hours in primigravida and 30 minutes in multipara. The third stage lasts for 15 minutes in both primigravida and multipara. The fourth stage is called an observational phase lasting for at least 1 hour in both mother and baby in primigravida and multigravida.

Midwives have cared for women during childbirth for thousands of years. The meaning of the word midwife is "with woman," and the midwife's role is to offer supportive care to the expectant mother. In general, midwives use fewer interventions than obstetricians and place greater trust in birth as a normal process.

Episiotomy (prineotomy) is a surgically planned incision on the perineum and the posterior wall during the second stage of labor.

The first episiotomy was reported in 1741, being suggested as a way to prevent severe perineal tears. The worldwide rate of episiotomy increased dramatically in the early 1900's, coinciding with the move from women giving birth at home to having their baby in a hospital. This is when physicians became more involved in the normal, uncomplicated birth process. The popularity of episiotomy by two obstetricians deck and pomerocy-1977. WHO estimated that episiotomy rate was 54% in primi para women and 6% of multi para women in 2003. The prevalence of episiotomy is not the same in different countries.

Studies about the episiotomy rates around the world showed that this surgery ranged from 9.7% (Western Europe – Sweden) to 96.2% (South Africa – Ecuador) with lowest episiotomy rates in English – speaking countries(North America- Canada and United States) and it remained high in many counties (centred south-America like Brazil: 94.2%, South Africa – 63.3% and Asia like China 82%)<sup>3</sup>. In India, the overall rate of episiotomy was 40.6%. Among that midwives performed episiotomies at a lower rate (21.4%) than faculty(33.3%) and private providers(55.6%)<sup>4</sup>. The episiotomy rate in Karnataka is approximately 88% in women who are undergoing difficult labour. In Bangalore rates of episiotomy for vaginal birth range from 31% to 95% of the grand total of 3590 vaginal deliveries

Based on place of delivery, the episiotomy rate was in private medical college hospital- 91.8, government medical college hospital and private hospital- 74.7%, district hospital-69.5%, primary health centres – 55.1%. the episiotomy rate was 55.6% in pre term deliveries,67.1% term deliveries. Episiotomy was done in 60.6% off normal delivery and 83.6% in instrumental delivery. Episiotomy rate was 61.7% when the birth weight was below 2.5 kg. Inprimipara the episiotomy rate was highest to the extent of 83.4%. For second and more the episiotomy rate were 66.7%,37.5%.

The indications of episiotomy are whenthere is a serious risk to the mother of second or third degree tearing, in cases where a natural delivery is adversely affected. Natural tearing will cause an increased risk of maternal disease being vertically transmitted, the baby is very large, when perineal muscles are excessively rigid, when instrumental delivery is indicated, when a woman has undergone Female Genital

Mutilation, indicating the need for an anterior and or mediolateral episiotomy, prolonged late decelerations or fetal bradycardia during active pushing, The baby's shoulders are stuck or shoulder dystocia , or a bony association.

There are mainly four types of episiotomy. **Medio-lateral:** The incision is made downward and outward from midpoint of fourchette either to right or left about 2.5 cm away from the anus. **Median:** The incision commences from centre of the fourchette and extends on posterior side along midline for 2.5 cm. **Lateral:** The incision starts about 1 cm away from the centre of fourchette and extends laterally. **'J' shaped:** The incision begins in the centre of the fourchette and is directed posteriorly about 1.5 cm and then directed downwards and outwards along 5 or 7 o'clock position to avoid the anal sphincter. This is not done widely.

A descriptive scale known as the REEDA scale (Davidson, 1974) measuring five components associated with the healing process, graded 0–3 points, using direct measurement and observation, was used. The acronym REEDA is derived from five components that have been identified to be associated with the healing process. These are: redness, edema, ecchymosis , discharge and approximation of skin edges. Each category is assessed and a number assigned for a total REEDA score ranging from 0–15. The higher scores indicate increased tissue trauma. This tool appears to be the first systematic attempt to evaluate postpartum healing, which acknowledges the need for a standardized assessment tool independent of the severity of the perineal injury.

Nowadays complementary methods such as Aromatherapy using essential oils are established as an alternative therapy for episiotomy. It is used increasingly and Lavender oil is frequently prescribed due to its antiseptic and healing properties.<sup>7</sup> Lavender is native to the Mediterranean region. It was used in ancient Egypt for mummifying bodies. Lavender's use as a bath additive originated in Persia, Greece, and Rome countries. The herb's name comes from the Latin lavare, which means "to wash" and it was used as an antiseptic.

Spanish lavender (*Lavandulastoechas*) has a long history of traditional medicinal use. Constituents of lavender (*Lavandulaspp.*) essential oil have anti-inflammatory, antifungal, and antibacterial effects, including activity against gram-negative and gram-positive bacteria, as well as pathogenic fungi.

Sitz bath is the form of water bath and it is also called a 'hip bath', which is coming back into popularity as a low risk. Sitz bath-term comes from the German verb "sitzen" meaning 'to sit'. The sitz bath is a European tradition in which only the pelvis and abdominal area are placed in the water. It helps for women after child birth whether or not had an episiotomy. The lavender oil sitz bath helps for better perineal wound healing.

After a vaginal delivery, most women experience swelling of the perineum and consequent pain. This is intensified if the woman has had an episiotomy or a laceration. Routine care of this area includes ice applied to the perineum to reduce the swelling and pain relief. Conventional treatment is to use ice for the first 24 hours after delivery and then change to warm sitz baths.

Cryoanalgesia is defined as the application of cold therapy to a localized part of the body to block local nerve conduction of painful stimuli and ice application can produce a strong analgesic effect in many painful conditions. Perineal trauma, however, involves more than simply an increase in localized pain. It has been suggested that the oedema which appears soon after childbirth is a major contributing factor to the distress and discomfort incurred by women and immediate application of ice packs can reduce its severity.

A compress is made by soaking a piece of clean cloth such as linen, cotton or gauze in a decoction or infusion and applying it as hot as can be tolerated to the affected area. When the compress has cooled, it can be soaked again in the reheated liquid and reapplied until the condition has been relieved. Compresses can also be applied cold. For postpartum the compress should be a cold or cool one.

When cold is applied to an area, the skin gets tightened; arterio-venous anastomosis is closed, causing constriction of blood vessels and reduction of blood supply to the area. When the cold stimuli has been removed, there is a reaction which is slow, prolonged and much bigger than the action, the skin gradually gets warmed up, the circulation of the blood increases, to the skin. This happened due to increased metabolism of the skin due to cold application. Histamine like substance is produced which ultimately dilate the blood vessels increasing the blood flow in the arterioles and capillaries. This is a reaction of initial cold response.

## NEED FOR THE STUDY

Postpartum period is the period during which the woman adjusts, physically and psychologically post pregnancy and birth. It is the period after the end of labour during which the attendance of a midwife upon the woman and baby is required, being not less than 10 days and for a longer period if the midwife considers it necessary. A willful time frame divides the period into the immediate postpartum (first 24 hours), early postpartum (first week) and late postpartum (second to sixth weeks). The main goal in postpartum care is to assist and support the woman's recovery to the pre pregnant state.

Episiotomy is the most common perineal incision and the rate of episiotomy is on the rise in developed countries but still remains high in developing countries. Episiotomy is a widely performed intervention in childbirth. It is a surgical incision in the perineum to enlarge the vaginal opening for birth. It is being performed for nearly 250 years; the use of this procedure remains highly controversial. It is one of the only surgical procedures to be performed without the patient's specific consent.

Episiotomy is used widely today because it prevents lacerations, heals better, easier to repair than a ragged tear, allows for easier and safer regression of the head thereby preventing possible brain damage reduced incidence of uterine prolapse in subsequent deliveries. If performed before, tissues are overstretched, shortens the second stage of labour and it may prevent painful haemorrhoids. It is also performed for a majority of forceps deliveries especially in ATC (Axis traction forceps) and also with breech and face deliveries.

The World Health Organization has taken a clear stand against routine episiotomy. The episiotomy infections are preventable and can be reduced by practicing clean delivery and effective postnatal care. Midwives have an important role in the care of episiotomy wound after child births. National perinatal information centre/ quality analytic services trend data base episiotomy rate in India was 19% ending with 13.3% in 2007. The rate was 12.3% in 2005 and 12.6% for the first quarters of 2009. In Tamil Nadu at Trichy zone in Government Hospital department of obstetrics and gynaecology at labour ward 20 to 30 deliveries were conducted per day and more than 500 deliveries conducted in every month. In this 70% of labour conducted with episiotomy to prevent perineal tear. (Report collected from data collection). In Trichy district primary health centres were conducted 30 to 50 deliveries per month.

Midwives must realize the relevance of their care and potential impact, both positive and negative advocates of treatments in wound healing. In this era of advanced modern technology all mothers are looking hopefully at nurses to help in bringing down the maternal morbidity rate and relieve them from suffering, pain and discomfort after childbirth. Thus it becomes the nurses responsibility to identify the ways of preventing and reducing maternal morbidity as well as to identifying the cost effective measures in promoting the wound healing. 20 to 30 % of the mothers are died due to puerperal infection per annum, this motivates the researcher to do the study on betadine sitz bath on level of episiotomy wound healing among primi postnatal mothers.

**Perineal trauma is a common occurrence in childbirth, with up to 50-60% of women needing stitches after a vaginal delivery.** Over 85% of birthing women will sustain perineal trauma. Approximately 70% of these women will experience a degree of perineal trauma that requires repair. Such damage can have an impact on the woman's short term and long term health. Failure to recognize the extent of the trauma, an incorrect repair and inadequate management during and after the repair may contribute to major physical, psychological and social issues.

Daily attention should be directed to the episiotomy. An episiotomy is a wound, and its care parallels that of any other wound. The perineum needs to be kept clean and dry. Unlike most wounds, cleanliness is made difficult by defecation and maturation. Daily cleansing with soap and water is helpful in keeping the area clean and free from secretions. A squeeze bottle of water to irrigate the perineum has also been found to be helpful for maintaining cleanliness as well as for providing comfort. The use of sitz baths has been long advocated in the relief of perineal pain and wound care.

The mechanism of action of lavender oil is absorption through the skin. The molecules of essential oils and carrier oils are small enough to permeate through the skin barrier. Skin absorption can be via massage, bath, foot bath and hot or cold compresses. The molecules will be absorbed easily into the skin within 20- 40 min depending on the chemical nature of the oil.

Lavender oil Sitz bath is a simple and it has not any side effects, cost effective and easy method of treating episiotomy wound healing in the hospital as well as in home settings. As it takes less time, sitz bath is not a routine practice in our ward settings in spite of it being cost effective and less time consuming. During this procedure care giver can talk and communicate with the mothers who may reduce the fear and may increase comfort, during the postnatal days. The postnatal mother can do this independently in the home setting also when they get discharged from the hospitals following the delivery.

In India, the birth rate is very high. 56% of Indian women had an episiotomy compared to the White women (46%). The difference between these percentages (10%) is a measure of the excess frequency in Indian women. A study was conducted to calculate the percentage of episiotomy performed in the US. Out of all vaginal deliveries, it was found to be 19.4%. Episiotomy rate was higher among white women (32.4%) than African American women (11.2%). The episiotomy rate in Tamil Nadu is very high that is, about 88% in women who are undergoing difficult labour

In this study, the investigator assumes that hot application is the best among the hot and cold application for the healing of episiotomy wound, so this will enable us to a better healing methods for the postnatal mothers and provide a better care using hot application.

When I was in clinical experience in primary health centre, I found that in many postnatal mothers with episiotomy wound and it has many negative impacts on women's ability to care for their newborn and herself need would decrease significantly. Hence the investigator rightly felt to conduct a comparative study on the effectiveness of lavender oil sitz bath and cold gel pack application in the management of episiotomy wound healing among postnatal mothers. Midwives have an important role to play in the care of perineal wounds following childbirth. The maintenance of effective pain relief must be balanced with the need to promote wound healing.

**Tushita Thakur, (2014)** This study was conducted to evaluate the pattern of episiotomy use and its immediate complications among women delivering at tertiary level public hospitals in India. Prospective data were collected daily from the labour room registers of the 18 tertiary care hospitals on a structured proforma. Among

1,20,243 vaginal deliveries, episiotomy was performed in 63.4 per cent (n=76,305) cases. The results shows the nulliparaous women were 8.8 times more likely to undergo episiotomy than multiparous women. The combined rate of third and fourth degree perineal tears was observed to be significantly lower ( $p<0.001$ ) among nullipara who received episiotomy (0.13%) compared to those who delivered without episiotomy (0.62%). The risk and benefit of episiotomy and its complications need to be evaluated through randomized clinical trials in the Indian context.

### **STATEMENT OF THE PROBLEM**

A comparative study to evaluate the Effectiveness of Lavender Oil Sitz Bath and cold gel pack application on episiotomy Wound among Post natal Mothers in Primary Health Centre at Trichy District, during the year 2016-2018.

### **OBJECTIVES**

1. To assess the episiotomy wound among postnatal mothers between lavender oil sitz bath and cold gel pack application.
2. To compare the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound.
3. To find out the association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application.

### **HYPOTHESIS**

- H1: There is no significant difference in the pisiotomy wound among postnatal mothers in primary health centre between lavender oil sitz bath and cold gel pack application at  $p<0.05$  level of significant.
- H2: There will be a significant difference between the lavender oil sitz bath and cold gel pack application on episiotomy wound among postnatal mothers in primary health centre.
- H3: There will be a significant association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application in primary health centre at  $p<0.05$  level of significant.



## **OPERATIONAL DEFINITIONS**

### **Compare:**

Cambridge dictionary describes compare means to examine or look for the difference between two or more things.

In this study the postnatal mothers are randomly assigned to one of two experimental groups for the purpose of comparing the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound.

### **Effectiveness**

**Effectiveness** is defined as the capability of producing a desired result or the ability to produce desired output. When something is conceived effective, it means it has an intended or expected outcome.

In this study it refers to the improvement in episiotomy wound status which is observed by improvement in healing process which is measured by REEDA scale.

### **Lavender oil**

A colorless to yellowish aromatic essential oil. It is obtained from the flowers of various lavenders and used chiefly as a perfume and also in medicine as a stimulant.

In this study it refers to commercially available oil which is extracted from the fresh flowers of the lavender plant and used for episiotomy wound.

### **Sitz bath**

A sitz bath is a type of bath. It is otherwise known as hip bath which only the hip and buttocks are soaked in water or saline. Its name comes from the German verb "sitzen," meaning "to sit."

In this study it refers to the immersion of perineal area or buttocks in 4 litres of warm water having a temperature of 105 degree to 110 degree Fahrenheit added with 5 drops of lavender oil for 15-20 minutes twice a day for 3 days.

### **Cold gels pack application**

A compress of gauze piece or cloth, or plastic filled or moistened with a cold fluid is applied externally to swollen or injured body parts to relieve pain and swelling.

In this study it refers to the act of applying commercially available cold gel pack wrapped with cloth to the episiotomy wound for 15- 20 minutes.

### **Episiotomy wound**

An episiotomy is a surgical incision made in the area between the vagina and anus or perineum. This incision is done during the last stages of labor and delivery to expand the opening of the vagina to prevent tearing during the delivery of the baby.

In this study it refers to planned surgical incision made on lateral and posterior vaginal wall during vaginal delivery which has been sutured and manifested as loss of tissue and skin integrity.

### **Post natal mothers**

According to World Health Organization (WHO) the postnatal period as the most critical and yet the most ignored phase in the lives of mothers and babies. Most of the maternal and/or newborn deaths occur during the postnatal period. Postpartum period are ordinarily used to refer to the first 6 weeks following childbirth.

In this study it refers to the women in primi and second gravida mothers who delivered by normal vaginal delivery with Episiotomy. Postpartum period can be divided into three distinct stages:

- a. Initial or acute phase- 6-12 hours after childbirth.
- b. Subacute postpartum period, which lasts 2-6 weeks.
- c. Delayed postpartum period, -last up to 6 months.

### **ASSUMPTIONS**

The study assumes that:

- Administration of lavender oil sitz bath may enhance episiotomy wound.
- Hot application helps to reduce the infection and fasten the wound healing process.
- Cold application lowers the temperature of underlying tissues and causes vasoconstriction and promotes effective wound healing.
- The hot application is significantly more effective than cold application.

## **DELIMITATION**

- The study will be limited to postnatal mothers with episiotomy wound.
- The study will be limited to the mothers who have delivered in primary health centre at trichy district.
- Data collection period will be limited to 4 weeks.
- The sample was limited to 60 samples only.

## **PROJECTED OUTCOME**

- The study will help to improve the episiotomy wound among post natal mothers.
- The study will help to prevent post natal infection.

## **CONCEPTUAL FRAMEWORK**

### **KINGS GOAL ATTAINMENT THEORY**

The study is based on Imogen king's goal attainment theory (1997) which would be relevant for lavender oil sitz bath and Ice gel pack application on episiotomy. In this system human are in contact with their environment.

The main concept in Imogene kings open system are perception a process of organizing, interpreting and transforming from sense data and memory that drives meaning to ones image of reality and influence ones behavior.

### **PERCEPTION**

In this study the researcher perceives that most postnatal mothers had poor wound healing on episiotomy.

### **JUDGEMENT**

In this study researcher judge that the lavender oil sitz bath and cold Gel pack application is effective in improving wound on episiotomy. It provides confidence to tackle the subsequent pregnancy.

### **ACTION**

In this study the researcher prepare the lavender oil sitz bath and Ice Gel pack application is effective in improving the wound healing on episiotomy among the postnatal mothers.

## **MUTUAL GOAL SETTING**

In this it is an activity that includes the postnatal mother's when appropriate in prioritizing the goal and in developing the plan of action to achieve those goals. Here in this study both the researcher and mothers accept to undergone with the research study.

## **REACTION**

The researcher plan is together moves towards goal attainment. Here the researcher plan to give hot application and cold application on episiotomy wound healing.

## **INTERACTION**

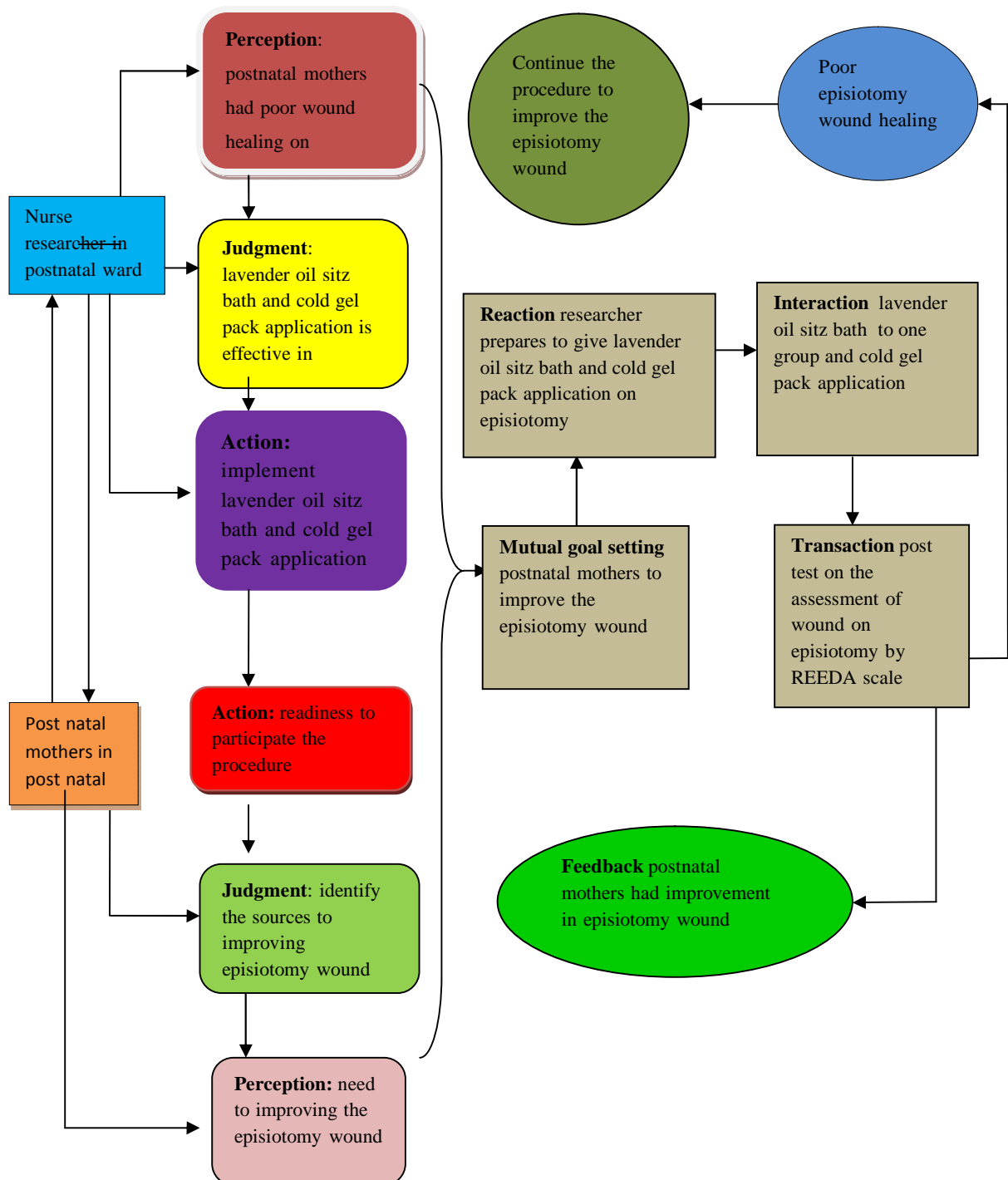
The act of two or more persons, in mutual presence and sequence of verbal non verbal behaviors that are directed towards goal.

In this study the interactions includes administration of lavender oil sitz bath to one group and cold gel pack application to another group and assess the level of wound healing.

## **TRANSACTION**

In this study the transaction includes post test on the assessment of wound healing on episiotomy among post natal mothers.

In this study the researcher and the subject come together for an interaction. A different set of perception to exchange. The researcher perceives the subject need to give hot application and cold application on episiotomy wound healing to manage the emergency situation confidently in hospital and in community settings.



**CHAPTER - II**  
**REVIEW OF LITERATURE**

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

Review of literature is one of the most important steps in the research process. It is an account of what is already known about a particular phenomenon. The main purpose is to convey to the reader about the work already done and the knowledge and ideas that have been established on a particular topic of research. It is an account of the previous efforts and achievements of scholars and researcher on a phenomenon.

It is divided into three sections

**SECTION A:** Review of literature related to prevalence of episiotomy wound.

**SECTION B:** Review of literature related to lavender oil sitz bath.

**SECTION C:** Review of literature related to cold gel pack application

**SECTION D:** Review of literature related to comparing the effectiveness between cold and hot application on episiotomy wound.

#### **SECTION A: Review of literature related to episiotomy wound**

**M.S. Indhumathi, E.Chandra** (2014) study was conducted ‘on population based study of episiotomy’ to estimate episiotomy rate in a rural population. Samples was 442 mothers who had vaginal delivery selected by Cluster sampling . Overall results of episiotomy rate were 67%. For women whose delivery was conducted by doctors the episiotomy rate was 77.4% and conducted by nurses it was 53.1%. Episiotomy rate was very high that is 91.8% when delivery was conducted in private medical college hospitals. Hence the study concluded that Episiotomy rate in the study population is high. Probably similar high rates are found in other parts of India.

**ZekiyeKaraçam, HaticeEkmen** (2014) a prospective study was designed to identify the prevalence of episiotomy in primiparas, related conditions. Data were collected via a questionnaire. 396 primiparas were included in the study by convenience sampling. It was determined that 56.3% of the women had episiotomies. The episiotomy rate was similar among women with and without fetal heart rates <120 beats per minute during the second stage of labor (25.1% vs 20.2%); however, only one newborn of the woman with episiotomy had the first minute APGAR score of six. On the other hand, the mean birth weight ( $3213.41 \pm 391.59$

g vs  $3129.25 \pm 383.11$  g;  $P < 0.05$ ) and the baby's head circumference ( $34.69 \pm 1.31$  cm vs  $34.27 \pm 1.20$  cm;  $P < 0.001$ ) of the newborns of gravidas with episiotomy were significantly higher than gravidas without episiotomy.

A study was conducted on “relative frequency and predictors of episiotomy” to determine the rate and risk factors for episiotomies. This retrospective study extracted information on age, occupation, parity, type of vaginal delivery, birth weight of the newborn, and episiotomy status from the case notes of 280 patients and analyzed it using the Statistical Package for Social Sciences version 13. The episiotomy rate was 34.3% in the present study. The rate of episiotomy decreased with parity, with the nulliparous having the highest rate 62.2%. The rate was higher among those who had assisted delivery 80.0% than spontaneous vertex delivery. The episiotomy rate at this centre is high 34.3% in comparison to the recommended 10% by the World Health Organization. Nulliparity and assisted vaginal delivery appear to be the risk factors for episiotomy in this centre.

**Hoda abed, El azim** (2012) A quasi experimental study was conducted to evaluate the effect of self perineal care instructions on episiotomy pain and wound healing of postpartum women by applying an ice pack, moist or dry or topical applications. A total of 80 postpartum were recruited randomly. Tools used for data collection consisted of interviewing sheet, the numerical rating scale (NRS), the standardized hoda REEDA Scale and follow up sheet. The Results was revealed that statistically significant reduction in the level of perineal pain at 4, 24, & 48 hours and seven days postpartum between the two groups. A highly statistical significant difference between groups in relation to the interference of pain with walking, sitting, and urination at 24 & 48 hours, and at seven days postpartum and the reduction in the REEDA scores of wound healing in experimental group as compared to control group. The study concluded that, women who received and practice self perineal care instructions on episiotomy pain have, lower the level of postpartum episiotomy pain scores.

**Chigbu B**(2008)A study was conducted on factors influencing the use of episiotomy during vaginal delivery, the objective of the study was to determine the prevalence of episiotomy to examine factors influencing the performance of episiotomy. The sample size was 4172 mothers. There were 1877 episiotomies 45%.



90% of primigravidparturients had episiotomy. Women undergone episiotomy were younger mean age 24.7 years, range 16-36 than women without episiotomy mean age 28.5 year, range 20-43. When controlled for parity and maternal age, other risk factors were occipito posterior position, vacuum extraction, forceps delivery, vaginal breech delivery and a history of caesarean section. The study shows that episiotomy rate is 45 per 100 vaginal deliveries. Greater attention needs to be paid in order to avoid major perineal lacerations and increased length of hospital stay.

## **SECTION B: Review of literature related to lavender oil sitz bath**

A study was conducted to evaluate the effect of aromatherapy, on postpartum mother's perineal healing. The research design was clinical trial and the subjects of this experiment were postpartum mothers who delivered vaginally with an episiotomy. The methods of aromatherapy were applied sitz bath or soap application using essential oils with Lavender, Myrrh, Neroli, Rose, Grapefruit, Mandarin, Orange, and Roman Chamomile. They were allocated to one of 3 groups; the aroma-sitz bath group, aroma-soap application group or control group. The perineal healing status was measured using the REEDA scale and smears of episiotomy wound were obtained. The data were analyzed by ANOVA, ANCOVA,  $\chi^2$ -test. The REEDA scale was significantly lower in the experimental group at postpartum 5th and 7th days ( $P=.009$ ,  $P=.003$ ). Most were observed 5-10 % bacteria per field bacteria in the smears of episiotomy wound. The one bacteria was identified in the 50.8% of subjects in pretest and two bacteria in the 60.3% in posttest. Most frequently identified bacteria were *Escherichia coli* and *Enterococcus faecalis*. The findings indicated that postpartum aromatherapy for perineal care could be effective in healing the perineum.

**Alias dale, Sheila comwell**(1994) A study was conducted, for the use of lavender oil for perineal healing, on 635 women using lavender oil and placebo following normal vaginal delivery for perineal healing. In this study mean discomfort score was lower in women using lavender oil, and with no significant side effects reported, individuals in the lavender group and 17 of the control group had no pain at all which was not significantly different between the groups. 31 individuals (51.7%) in the lavender group and 13 individuals (21.7%) in the control group had no redness ( $p = 0.001$ ). Edema more than 2 cm was not observed in the lavender group. The study concluded that "use of lavender oil for perineal healing is effective".

**Vakilian. K,** (2011) A study to evaluate the alternative and complementary methods such as Aromatherapy using essential oils are established as an alternative therapy for episiotomy wound. This randomized control trial was conducted on 120 primiparous women with singleton pregnancy. They were randomly allocated in case and control groups. Experimental group received lavender oil and controls received povidone-iodine. Incision sites were assessed on the 10th day postpartum. 25 out of 60 women in lavender group and 17 mothers in control group had no pain ( $p = 0.06$ ). There was no significant difference between two groups in surgery site complications. However, redness in lavender group was significantly less than controls ( $p < 0.001$ ). This study concluded application of lavender essential oil instead of povidone-iodine for episiotomy wound care.

**Fatemehsheikhan** (2011) A study was conducted in 60 qualified primiparous women admitted for labour. They were randomly categorized into two groups: case group using with Lavender oil and control that using with hospital protocol. Participants pain and discomfort were recorded using a Visual Analogue Scale (VAS) and a Redness, Edema, Ecchymosis, Discharge Scale (REEDA). Pain was evaluated at 4 h, 12 h and 5 days following episiotomy. Collected data was analyzed in SPSS 14 using an independent t-test and chi-square. There was a statistical difference in pain intensity scores between the 2 groups after 4 h ( $p = 0.002$ , and 5 days ( $p = 0.000$ ) after episiotomy. The REEDA score was significantly decreased in the experimental group after 5 days of episiotomy ( $p = 0.000$ ). The study revealed that the use of Lavender oil essence can be effective in reducing perineal discomfort.

**Fereshteh Behmanesh,**(2011) A double blind clinical trial was done on 89 selected eligible women with mediolateral episiotomy or perineal tear grade 2. After episiotomy repaired, they were randomly allocated into three groups: group 1 underwent care by 10 drops lavender essential oil 2% based olive oil sitz bath (5 liters), group 2 by 10 drops olive oil sitz bath (5 liters) and group 3( control group) by 10 drops distilled water sitz bath(5 liters) BID for ten days. The study data were collected through demographic data, REEDA scale and visual analog scale of pain. The data were analyzed by repeated measure of ANOVA, Chi 2 test, via SPSS version 16. All statistical testes were two-tailed, and p-values of  $\leq 0.05$  were considered

statistically significant. There was significant difference in REEDA scale between group 1 with group 3 ( $p=0.002$ ) and group 2 with group 3 ( $p=0.000$ ). There was a change in VAS score at 2 hours, 5th, and 10th days postpartum for three different groups ( $p=0.032$ ). There was significant difference in VAS score for three different groups ( $p=0.030$ ). This study suggests that lavender based-on olive oil and olive oil added to routine water sitz bath for post-episiotomy care.

**P. Geetha**, Effectiveness of Ice Pack Application on the Level of Pain in Episiotomy Wound, a simple random technique was used to select the samples of 60 postnatal mothers in to experimental and control groups. The structured interview was used to collect the demographic data from the participants. Ice pack application has been carried out twice a day both in morning and the evening at an interval of 10 hours. The results shows the experimental group, post test mean score 0.87 and t value 12.16. In control group post test score was 2.70 and t value was 12.16,  $P=0.001$ ,  $DF=58$ . The resultsshow the effectiveness of ice pack application on episiotomy wound among the postnatal mothers in the experimental group is high.

### **SECTION C: Review of literature related to cold gel pack application**

**Cached** (2007) A randomized control clinical trial method was carried out in clinic of Kamali Hospital in Karaj to evaluate the effects of cold gel pads in relieving episiotomy discomforts of the Iranian primiparous mothers. 60 samples were taken. By using a table of random numbers, 60 subjects were randomly allotted to 1 of 2 treatment groups. One group were following the routine practical programme of taking warm sitz bath twice daily for 30 minutes while those in experimental group were given a reusable cold gel pads. The healing of episiotomy was recorded using a REEDA scale at 5 days after episiotomy. The use of cold gel pads resulted in significant difference in perineal edema, ecchymosis, approximation compared with routine practical programme. Researchers concluded that applying cold gel pack is an effective non-invasive method of relieving discomforts and promote healing of episiotomywounds.

**East CE begg**L (2012) A randomized and quasi experimental trial study was conducted to evaluate the effectiveness and side effects of localized cooling treatments such as ice packs, cold gel pads, cold/iced baths with no treatments, other

forms of cooling treatments and non-cooling treatments. 859 samples were taken. The results revealed that ice packs provided improved pain relief and healing of episiotomy 24-72hrs after birth compared with no treatment. Researchers concluded that there is only limited evidence to support the effectiveness of local cooling treatments applied to the perineum following child birth to relieve pain and healing of episiotomy. Ice packs provided improved pain relief 24 to 72 hours after birth compared with no treatment.

**Steen M, Cooper K (2000)** A randomized controlled trial was conducted to evaluate the effectiveness of ice packs and epifoam at relieving perineal trauma and compare these with a new cooling device like maternity gel pads. 120 samples were taken involving 3 treatment groups. Women's opinions as to the effectiveness of their treatment were rated by use of a 5 point scale describing the categories: poor, fair, good, very good & excellent. The result of the study showed that women in gel pad group rated the effectiveness of their localized treatment to be significantly higher than women in the other 2 treatment groups. Researchers concluded that maternity gel pads designed to cool the perineal region and more effective in alleviating perineal trauma when compared with hospital standard regimes and were more highly rated by women.

**Yashashri Subhash Pore** The purpose of the study is to assess effectiveness of moist heat (Sitz bath) and dry heat (infra red light) application on healing of episiotomy wound. Healing of episiotomy is assessed with REEDA scale. Findings of the study revealed that both methods of treatment were effective in healing of episiotomy wound. The application of moist heat showed higher effect on Edema and Redness and lower effective for Ecchymosis, Discharge and Approximation. The application of dry heat shows equal effect on Redness and Edema, where as it is less effective on Ecchymosis, Discharge and Approximation. The study concludes that the REEDA scale score was higher before treatment but after treatment REEDA scale score was decreased. The comparative difference between moist heat and dry heat showed dry heat proved to be more effective than moist heat.

**Amany, Ahmed, Safaa H. Mohamed,** (2015) conducted a retrospective study 400 women at the end of postpartum period who attended at maternity and health care. Each interview lasted 15 to 20 for women and 5 to 10 minutes for obstetricians.

It was found that, delayed healing and gapping, were significantly increased by high number of previously (p=0.013, and p=0.008 respectively), wound extension and/or hematoma and p<0.0001 respectively and high number of previous episiotomy (p=0.003, p=0.0001 and p=0.045 respectively), wound extension (p=0.027, p=0.001, and p<0.0001 respectively) and presence of wound infection (p=0.049, p=0.48 and p=0.037 respectively).

**Arati mahishale<sup>1</sup>, ashwini chougala<sup>1</sup> et.,al**, (2013) evaluated that the present study was aimed to evaluate the effectiveness of therapeutic ultrasound and cooling maternal gel pads for perineal pain following vaginal delivery. Control (n-15) and interventional group (n-15) both group selected randomly. Outcome measured by included Visual Analog Scale (VAS) and REEDA scale. The mean value of VAS before intervention was  $6.7 \pm 1.4$  in control group and  $7.2 \pm 1.6$  in experimental group. The mean value of VAS after intervention in control group was  $5.8 \pm 1.7$  with p value 0.56 and  $3.2 \pm 1.3$  in experimental group. There was statistically significant difference seen in pain score after 3 days of intervention in experimental group with p value 0.02. The mean value of redness was  $1.63 \pm 0.781$ , edema  $1.38 \pm 0.48$ , ecchymosis  $0.78 \pm 0.96$ , discharge  $0.24 \pm 0.31$ , approximation  $1.47 \pm 0.26$  before intervention in control group and the mean value of redness  $1.8 \pm 0.71$ , edema  $1.46 \pm 0.56$ , ecchymosis  $0.5 \pm 0.83$ , discharge  $0.3 \pm 0.42$  and approximation  $1.61 \pm 0.34$  experimental group. There was no statistically significant difference in both group.

#### **SECTION D: Review of literature related to comparing the effectiveness between cold and hot application on episiotomy wound healing.**

**NANNEMAN** (1991) A study conducted to educate and encourage employees in the self-application of thermal modalities, because they are safe, simple, and inexpensive. Topical thermal modalities application has potential therapeutic effects on local circulation, metabolism, and local neuromuscular and musculoskeletal function. Topical heat application is often more easily accepted while cold application is less favorably accepted. Physiological findings however indicate that for topical application, cold application has much greater potential for restorative, therapeutic effect while topical heat is almost exclusively limited to palliative effects.

**HARRY S. TRUMAN**(1989)An experimental study was conducted in Harry S Truman Memorial Veterans hospital, Columbia to assess the effectiveness of a warm versus cold sitz bath in relieving post episiotomy pain. Sensation, edema, distress and hematoma ratings were obtained through pre and post treatments. Researchers concluded that both therapies were found comparable with the exception that the cold bath was significantly more effective in reducing edema and episiotomy healing.

**Hill PD**(1989)A study evaluated the effects of heat and cold on the perineum during first 24 hours after delivery. 90 patients were randomly assigned to one of the three treatment groups. Treatment consisted of warm perineal pack, cold perineal pack, and warm sitz bath. Laceration were related from one to four according to severity. A pearson r correlation between these ordinal values indicated that the REEDA score was associated with the extent of laceration ( $r=0.32$ ,  $p< 0.001$ ) and not with infant weight as others have reported. Subject who have only with laceration delivery scored significantly higher on the REEDA scale assessment( $t=(88)=-3.69$ , $p<0.001$ ) than subjects who received an episiotomy with or without laceration.

**Jacob J.** (2009) A study conducted on “effectiveness of Sitz bath versus Infra red lamp on episiotomy wound healing” found that, After treatment with Sitz bath on 30 sample, 47 percent change was observed on approximation of an episiotomy wound, 77 percent reduction of exudates, 100 percent reduction in edema, 100 percent decline on the pain score. Which shows that Sitz bath was an effective intervention to improve episiotomy wound healing. After treatment with Infra red lamp on the parameter of approximation of episiotomy wound 33 percent moved to the scale of complete approximation of an episiotomy wound, 57 percent reduction of exudates, 100 percent decrease in edema , 100 percent decline in the pain level which shows that Infra red lamp was an effective intervention to improve episiotomy wound healing. In comparison of both the treatment Findings proved that Sitz bath was more effective than infra red lamp on parameters of approximation, exudates and edema while infra red lamp was more effective on parameter of pain.

**Yashashri Pore,** (2014) A study is to assess effectiveness of moist heat (Sitz bath) and dry heat (infra red light) application on healing of episiotomy wound. Healing of episiotomy is assessed with REEDA scale parameters redness,

edema, ecchymosis, discharge and approximation, before and after each application of moist heat and dry heat (30 dry heat and 30 moist heat). Findings of the study revealed that the REEDA scale score was higher before treatment but after treatment REEDA scale score was decreased. The comparative difference between moist heat and dry heat showed statistically significant however dry heat proved to be more effective than moist heat. the p-value 0.0211 is less than 0.05, it is evident that the application of Dry heat is more effective than the application of Moist Heat.

**Cindiya Jobson Wilbert, (2015)** A Quasi Experimental Study evaluate the effectiveness of application of Cold gel pad therapy in experimental group I and Infra red light therapy in experimental group II on episiotomy wound healing and pain. 30 post natal mothers selected by non probability sampling technique, 15 mothers in experimental group I and another 15 mothers in experimental group II for three days the results shows the overall mean post-test REEDA scale score in the experimental group I was 7 with a SD of 0.92, and in the experimental group II was 7.6 with a SD of 1.70. The calculated 't' value was 2.40 which was significant at 0.05 level when compared to table value 2.05. The study concluded that the application of Cold gel pad therapy was found to be an effective.

**SUSEN GEORGE (2011)** An experimental study conducted at Coimbatore in Tamil Nadu to determine the effectiveness of infrared therapy and sitz bath. 30 samples were randomly selected for the study, out of that 15 each has been assigned to two experimental groups. Two experimental groups were selected for infrared therapy and sitz bath and treatment were given for three days in the morning and in the evening. Results revealed that mother who had undergone the treatment of infrared therapy expressed decreased pain intensity compared to mothers who had undergone the treatment of sitz bath.

# **CHAPTER - III**

## **METHODOLOGY**



## **CHAPTER - III**

### **METHODOLOGY**

Research methodology is the systemic way to solve the research problem. In this chapter the investigator discusses the Research approach, Research design, Variables, Setting, Population, Sample, Sample size, Sampling technique, Criteria for data collection, Description of the tool and Plan for data analysis.

#### **RESEARCH APPROACH**

Research approach is the most significant part of any research. It involves the description of the plan to investigate the phenomenon under the study.

In this study, an Comparative and evaluative research approach was used to compare the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among postnatal mother.

#### **RESEARCH DESIGN**

The research design is the master plan specifying the methods and procedures for collecting and analyzing the needed information in a research study.

In this study the design was Quasi Experimental research Design and non equivalent two group pre test and post test. The design is represent below.

**TABLE:1** Research design description

<b>Group</b>	<b>Pre test</b>	<b>Intervention</b>	<b>Post test</b>
<b>E1</b>	O1	X	O2
<b>E2</b>	O1	X	O2

#### **KEY WORDS**

**E1:** Experimental group 1

**O1:** pretest on episiotomy wound

**X:** lavender oil sitz bath

**O2:** post test on episiotomy wound

**E2:** Experimental group 2.

O1: pre test on episiotomy wound

X: cold gel pack application

O2: post test on episiotomy

## **VARIABLES**

### **Independent variable**

In this study, the independent variables are Lavender oil sitz bath and Cold Gel pack application provide to the post natal mothers.

### **Dependent variable**

In this study, dependent variable is episiotomy wound among post natal mothers.

### **Demographic variable**

Age, education, occupation, monthly income, types of family, place of residence, parity, food pattern, BMI, types of episiotomy, indication for episiotomy, birth weight of the baby

### **Extraneous variables**

Age, education, parity.

## **SETTING OF THE STUDY**

Represents the area where the study is conducted. It may be natural setting or laboratory setting depending upon the study depending upon the topic and researcher's choice.

The study was conducted on postnatal mothers in primary Health Centre at Trichy District. I have chosen two primary health centres (puthuruthamanur and sirugambur block). Each block has four subcentres. Puthuruthamanur is one of the village in lalgudi block, tiruchirapalli District of Tamil Nadu State, India. It is located 20 Km towards North from District head quarters Trichirapalli. Irungalur (sub centre) is the nearby villages to puthuruthamanur. The total population of puthuruthamanur is 12000 peoples. It is 13 Km located from konalai. More than 30 deliveries are conducted for every month. I used two sub centre for Experiment-1 (Lavender oil sitz bath) and two sub centre for Experiment-2 (Cold Gel pack application).

## **POPULATION**

Population is a group of members who possesses specific attributes that is a researcher is interested in the study.

Target population of this study consists of postnatal mothers who have undergone normal or instrumental vaginal delivery with episiotomy wound at selected primary Health Centre at Trichy District.

Accessible population for this study consists of primi and secondary postnatal mothers who have undergone normal or instrumental vaginal delivery with episiotomy wound at puthuruthamanur and sirugambur primary Health Centre.

## **SAMPLING**

Sample is a part or subject of population selected to participate in the research study. In this study the sample comprised of postnatal mothers who have undergone normal or instrumental vaginal delivery with episiotomy at selected primary Health Centre at Puthur Uthamanur, Trichy District and fulfill the inclusion criteria for sample selection.

## **SAMPLE SIZE**

Determination of the sample size involves statistical and non statistical consideration based on the resources available, nature of the study and nature of the population. The sample size for this study comprises of 60 postnatal mothers in which 30 postnatal mothers in experimental group-1 and 30 postnatal mothers in experimental group-2.

## **SAMPLING TECHNIQUE**

Sampling is the process of selecting sample from the target population to represent the entire population. Non-probability convenient sampling techniques was used in this study

## **CRITERIA FOR SAMPLE SELECTION**

### **Inclusion criteria:**

- Postnatal mothers who are all with 1<sup>st</sup> and 2<sup>nd</sup> degree episiotomy wound.
- Postnatal mothers who are willing to participate in this study.

- Postnatal mothers who are available at the time of study.
- Postnatal mothers who understand the language.

#### **Exclusion criteria**

- Postnatal mother who are having more than two deliveries.
- Postnatal mothers who have obstetrical complications like post partumhaemorrhage
- Postnatal mothers who have done L.S.C.S.

#### **DESCRIPTION OF TOOL**

Tool comprised of two sections

##### **Section A: Demographic variables**

A structured interview will be used to assess the demographic data like age, educational status, parity, place of residence ,history of present medical illness, birth weight of the baby, types of episiotomy ,occupation, types of family, body mass index (BMI), indication for episiotomy. No score will allotted for this section and it will used for descriptive analysis

##### **Section B: REEDA scale to assess the episiotomy wound.**

The scale consist of wound healing score ranging from 0-15(good wound healing – poor wound healing) will be used to assess the Episiotomy wound. It will help to assess the Episiotomy wound of the postnatal mothers which has 5 items to measure the level of Episiotomy wound.

#### **REEDA SCALE SCORE**

The level of Episiotomy wound is divided into 4 categories as follows.

Minimum: 0 Maximum: 15

<b>Description</b>	<b>Score</b>
Good wound healing	0- 5
Average wound healing	6 - 10
Poor wound healing	11- 15

## STANDARDIZED REEDA SCALE

**TABLE: 2** REEDA scale

Points	Redness	Oedema	Ecchymosis	Discharge	Approximation
0	None	None	None	None	Close
1	Within 0.25 cm of the incision bilaterally	Perineal less than 1 cm from incision	Within 0.25 cm bilaterally or 0.5 cm unilaterally	Serum	Skin separation 3 mm or less
2	Within 0.5 cm of the incision bilaterally	Perineal and/or vulvar, between 1 to 2 cm from incision	Between 0.25 cm to 1cm bilaterally or between 0.5 cm to 2 cm unilaterally	Serosanguinous	Skin and subcutaneous fat separation
3	Beyond 0.5 cm of the incision bilaterally	Perineal and/or vulvar, greater than 2 cm from incision	Greater than 1 cm bilaterally or 2 cm unilaterally	Bloody, purulent	Skin, subcutaneous fat and fascial layer separation
Score					
				Total 15	

### VALIDITY

Validity refers to whether a measuring instrument accurately measures what it is suppose to measure. The content validity of the tool was done by 3 nursing experts, 1 medical officer, 1 statistics expert. Validity of the tool was established with obstetrical and gynaecological experts. The tool was modified according to the suggestions and recommendations of experts and tool was finalized.

### RELIABILITY

Reliability is the degree of consistency and accuracy with which an instrument measures the attribute for which it is designed to measure. The reliability of the tool was established by test retest method for REEDA scale.

## **PILOT STUDY**

Pilot is a small preliminary investigation of the same general characteristics as the main study, which is design to acquaint the researcher with the problem that can be corrected in the preparation for a large research project.

In order to test the feasibility, relevance and practicability of the study, a pilot study was conducted for a period of 7 days. The investigator obtained a written permission from the head of the hospital authorities. The purpose of the study was explained to the participants prior to the study. Pilot study was conducted for 6 postnatal mothers (3 mothers for experimental group-1 and 3 mothers for experimental group-2) in Sri Rajarajeshwari maternity home and non-probability convenient sampling technique was used to select the sample. First pre test was given in a first day and lavender oil sitz bath for 3 mothers in experimental group-1 and cold gel pack application for 3 mothers in experimental group-2 was also given on that day in Barkkavan hospital. Post test was conducted after 3 consecutive days by using REEDA scale for each group. The result of the pilot study was analyzed by the descriptive and inferential statistics and it showed the study was feasible to do. So the main study was proceeding.

## **METHOD OF DATA COLLECTION**

### **Ethical consideration**

The study was conducted in selected primary health centre at trichy district after obtained written permission from the respective authorities. Both verbal and informed written consent was obtained from each subject and data will be kept confidential.

### **Period of data collection**

The data collection was done over a period of 4 weeks.

### **Data collection procedure**

After obtaining the permission from concerned hospital authorities and informed consent from postnatal mother with episiotomy wound , 30 post natal mothers from each group was selected on the basis of convenient sampling technique before administering the lavender oil sitz bath to the subject, demographic data,

Episiotomy wound by using REEDA scale was assessed as a pre test. Then the lavender oil sitz bath was administered to the group I subject from the 1<sup>st</sup> day post partum period for 15- 20 minutes, every day for 3 consecutive days. Then the cold gel pack application was administered to the group II subject from the 1<sup>st</sup> day post partum period for 15-20 minutes in every day for 3 consecutive days. Then the level of episiotomy wound was assessed by using REEDA scale as post test on 3<sup>rd</sup> day of post partum period for experimental group-1 and experimental group-2.

### **PLAN FOR DATA COLLECTION**

The data was analyzed by using descriptive and inferential statistics.

#### **Descriptive Statistics:**

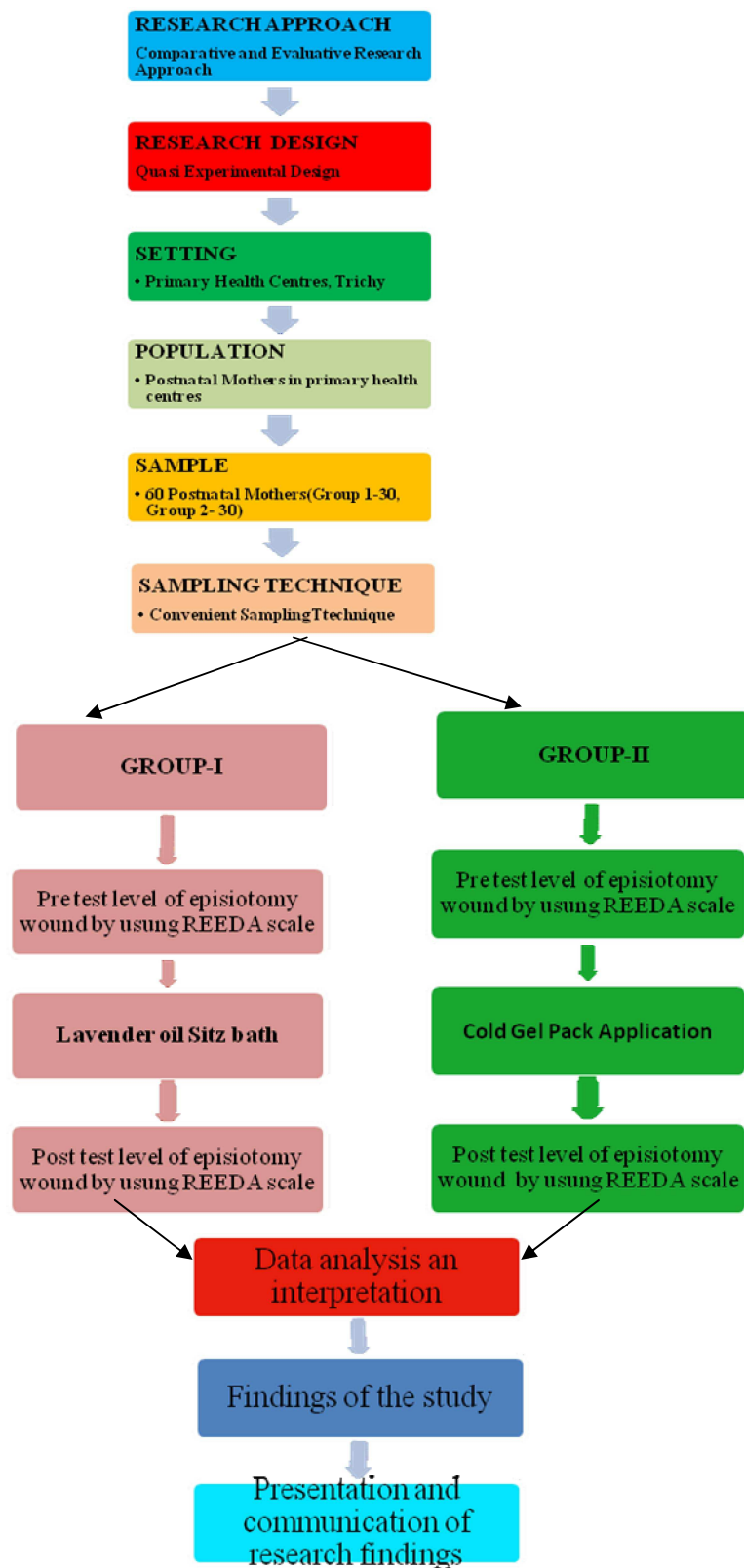
- Frequency, percentage distribution for demographic data
- Mean and standard deviation used for pre and post test score.

#### **Inferential Statistics**

- Paired 't' test is used to compare the condition of episiotomy wound among postnatal mothers between experimental group – 1 and experimental group 2.
- Chi square test will be used to find the association between condition of episiotomy wound and selected demographic variables of postnatal mothers among experimental group – 1 and experimental group 2.

### **PROTECTION OF HUMAN RIGHTS**

The study was approved by the dissertation committee prior to the conduction of pilot and main study. The investigator obtained oral and written permission from the respective authorities of the hospital. Both verbal and informed written consent was obtained from each subject by explain the purpose of the study prior to the data collection. Assurance was provided to the subject that the anonymity, confidentiality and subject privacy will be guarded throughout the study.



**FIG: 3 Schematic representation of the study**



# **CHAPTER - IV**

## **DATA ANALYSIS**

## **CHAPTER - IV**

### **DATA ANALYSIS**

This chapter deals with the description of sample characteristics, analysis and interpretation of data collected from postnatal mothers on episiotomy wound in experimental group – 1 and experimental group – 2. This chapter represents the organization of data and collection of data. It was interpreted by using descriptive and inferential method. The data was coded and analyzed as per the objectives of the study.

#### **ORGANIZATION OF DATA**

##### **SECTION: 1**

Assessment of demographic variables of the postnatal mothers with episiotomy wound in experimental group-1 and experimental group -2.

##### **SECTION: 2**

Assessment of pre test of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -1.

##### **SECTION: 3**

Assessment of post test levels of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -2.

##### **SECTION: 4**

Compare the significant difference between post test level of experimental group-1 and experimental group - 2 among the postnatal mothers on levels of episiotomy wound.

##### **SECTION: 5**

Assessment of association between the post test scores of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group – 2 with demographic variables.

## PRESENTATION OF DATA

### SECTION: 1

Assessment of demographic variables of the postnatal mothers with episiotomy wound in experimental group-1 and experimental group -2

**TABLE: 3**

Frequency and percentage distribution of demographic variables among the postnatal mothers regarding episiotomy wound in experimental group-1 and experimental group.

**N=60**

S.NO	DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP 1		EXPERIMENTAL GROUP 2	
		FREQUEN CY	PERCE NTAGE	FREQUEN CY	PERCE NTAGE
1	Age in years a) 19-22 years b) 23-26 years c) 27-30 years d) Above 30 years	12 14 1 3	40 46.7 3.3 10	13 13 3 1	43.3 43.3 10 3.3
2	Educational status a) Primary education b) High school c) graduate	9 20 1	30 66.7 3.3	19 11	63.3 36.7
3	Occupation a) Coolie worker b) Self employee c) House wife	1 10 19	3.3 33.3 63.3	2 20 8	6.6 66.7 26.7
4	Monthly income a) 3000-5000 b) 5001-7000 c) Above 7000	26 4	86.7 13.3	25 5	83.3 16.7
5	Types of family a) Nuclear b) Joint	27 3	90 10	25 5	83.3 16.7
6	Place of residence a) Urban b) Rural	28 2	93.3 6.6	27 3	90 10

7	Parity a) Primi gravida b) Second gravid	23 7	76.7 23.3	22 8	73.3 26.7
8	Food pattern a) Vegetarian b) Non vegetarian	2 28	6.6 93.3	4 26	13.3 86.7
9	Body mass index (BMI) a) Below 18 b) 19-25 c) 26-29	18 11 1	60 36.7 3.3	6 22 2	20 73.3 6.6
10	Indication of Episiotomy a) Macrosomia b) Elastic perineum c) Breech presentation	6 21 3	20 70 10	5 20 5	16.7 66.7 16.7
11	Type of Episiotomy a) Medio lateral b) Median	27 3	90 10	25 5	83.3 16.7
12	Birth weight of the baby a) Below 2.5 kg b) 2.5-3.5 kg c) Above 3.5 kg.	12 12 6	40 40 20	12 14 4	40 46.7 13.3

**Table: 3** shows the distribution of demographic variables among the postnatal mothers regarding episiotomy wound healing in both experimental group-1 and experimental group-2.

This table revealed that regarding the age, maximum 14(46.7%) postnatal mothers were in age group of 23 to 26 yrs, 12(40 %) postnatal mothers were in age group of 19 to 22 yrs, 3(10%) postnatal mothers were in age group of above 30 yrs, 1(3.3%) postnatal mother were in age group of 27 to 30 yrs in experimental group- 1. where as in experimental group –2, 13(43.3%) postnatal mothers were in age group of 19 to 26 yrs, 3(10%) postnatal mothers were in age group of 27 to 30 yrs, 1(3.3%) postnatal mother were in age group of above 30 yrs.

Regarding the educational status, maximum 20(66.7%) postnatal mothers studied high school, 9(30%) postnatal mothers studied primary education, 1(3.3%) postnatal mother studied to graduate in experimental group- 1. where in experimental group –2, 19(63.3%) postnatal mothers studied primary education, 11(36.7%) postnatal mothers studied high school and none of them in graduate.

Regarding the occupation, maximum, 19 (63.3%) postnatal mothers were working as house wife, 10 (33.3%) postnatal mothers working as self employee, 1 (3.3%) postnatal mother belongs to coolie worker in experimental group 1, where as in experimental group 2, 20 (66.7%) postnatal mothers were working as self employee, 8 (26.7%) postnatal mothers working as house wife, 2 (6.6%) postnatal mother belongs to coolie worker.

Regarding the monthly income, in experimental group-1 maximum 26 (86.7%) postnatal mothers were earned 3000-5000, 4 (13.3%) postnatal mothers were earned 5001-7000 and none of them earned above 7000. In experimental group-2, 25 (83.3%) postnatal mothers were earned 3000-5000, 5 (16.7%) postnatal mothers were earned 5001-7000 and none of them earned above 7000.

Regarding the types of family, maximum 27 (90%) postnatal mothers were belongs to nuclear family, 3 (10%) postnatal mothers were belongs to joint family in experimental group-1. where as in experimental group-2, 25 (83.3%) postnatal mother belongs to nuclear family, 5 (16.7%) postnatal mothers were belongs to joint family.

Regarding the place of residence, maximum 28 (93.3%) postnatal mothers were living in urban area and 2 (6.6%) postnatal mothers were living in rural area in experimental group-1. where as in experimental group-2, 27 (90%) postnatal mothers were living in urban area and 3 (10%) postnatal mothers were living in rural area.

Regarding the parity, maximum 23 (76.6%) postnatal mothers were belongs to primi gravida, 7 (23.3%) postnatal mothers were belongs to second gravid in experimental group-1. where as in experimental group-2, 22 (73.3%) postnatal mother belongs to primi gravida, 8 (26.7%) postnatal mothers were belongs to second gravida.

Regarding the food pattern, maximum 28 (93.3%) postnatal mothers were belongs to non vegetarian, 2 (6.6%) postnatal mothers were belongs to vegetarian in experimental group 1. where as in experimental group-2, 26 (86.7%) postnatal mother belongs to non vegetarian, 4 (13.3%) postnatal mothers were belongs to vegetarian.

Regarding the body mass index (BMI), maximum 18 (60%) postnatal mothers were having (malnourished) below 18, 11 (36.7%) postnatal mothers were having normal BMI 19-25, 1 (3.3%) postnatal mothers belongs to moderately obese BMI 26-29 in experimental group-1. in experimental group-2, 6 (20%) postnatal mothers were having (malnourished) below 18, 22 (73.3%) postnatal mothers were having normal BMI 19-25, 2 (6.6%) postnatal mothers belongs to moderately obese BMI 26-29.

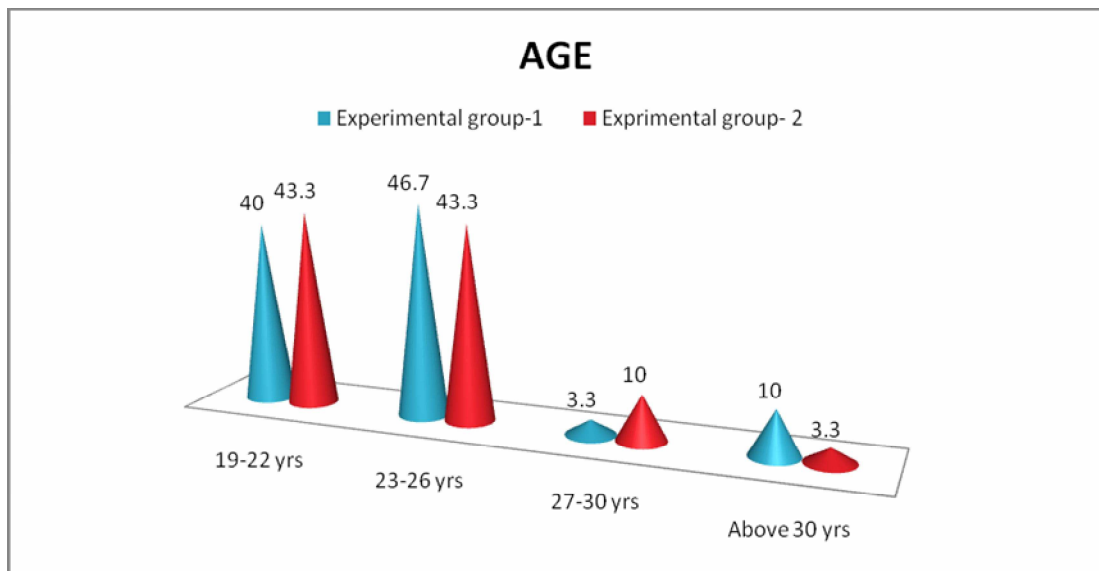
Regarding the indication of episiotomy, maximum 21(70%) postnatal mothers had elastic perineum, 6(20%) postnatal mothers of fetus had macrosomia and 3(10%) postnatal mothers of fetus had breech presentation in experimental group-1. where as in experimental group-2, 20(66.7%) postnatal mothers had elastic perineum and 5(16.7%) postnatal mothers of fetus had macrosomia and breech presentation.

Regarding the types of episiotomy, maximum 27(90%) postnatal mothers were delivered the newborn with the help of medio lateral and 3(10%) postnatal mothers were delivered the newborn with the help of median episiotomy procedure in experimental group-1. where as in experimental group-2, 25(83.3%) postnatal mothers were delivered the newborn with the help of medio lateral and 5(16.7%) postnatal mothers were delivered the newborn with the help of median episiotomy procedure.

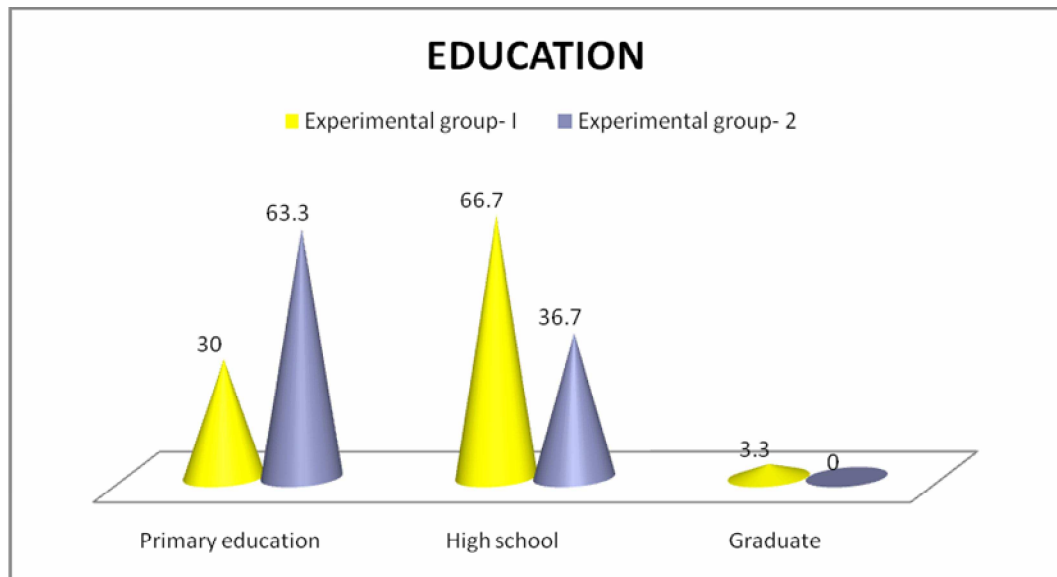
Regarding the birth weight of the baby, maximum 12(40%) postnatal mothers were delivered between below 2.5 to 3.5 kg of newborn and 6(20%) postnatal mothers were delivered in the kg of (above 3.5) in experimental group-1. where as in experimental group-2, 12(40%) postnatal mothers were delivered below 2.5 kg of newborn, 14(46.7%) postnatal mothers were delivered between 2.5 to 3.5 kg of newborn and 4(13.3%) postnatal mothers were delivered in the kg of (above 3.5).

**PERCENTAGE DISTRIBUTION EPISIOTOMY WOUND  
AMONG THE POSTNATAL MOTHERS IN EXPERIMENTAL  
GROUP I AND EXPERIMENTAL GROUP II BASED ON  
DEMOGRAPHIC VARIABLES**

**FIGURE: 4**

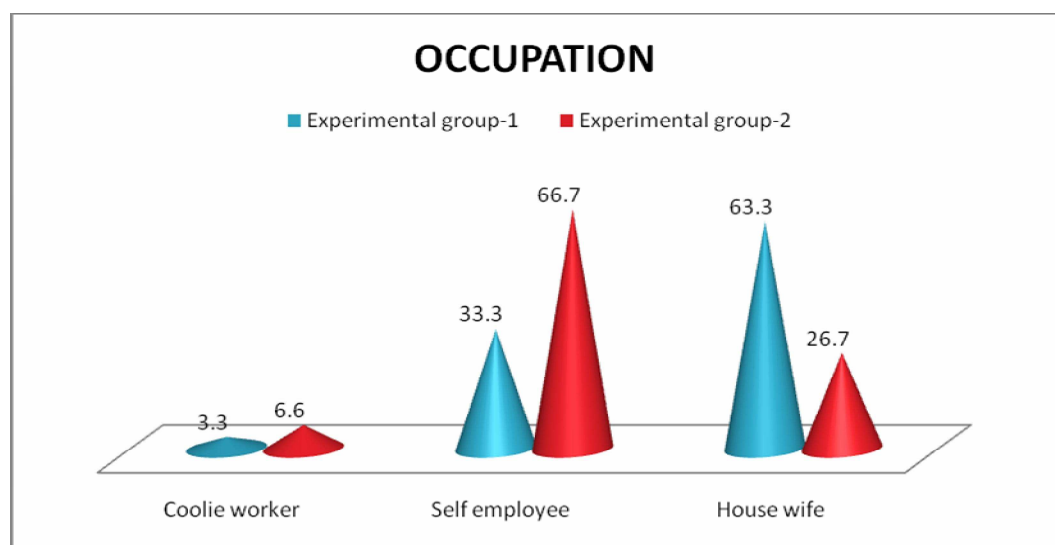


**FIGURE: 5**

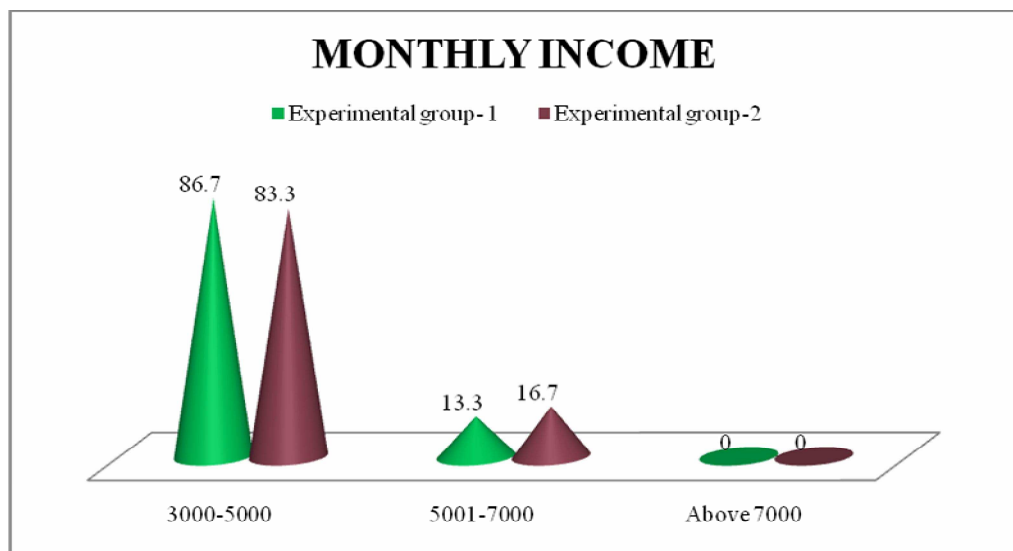




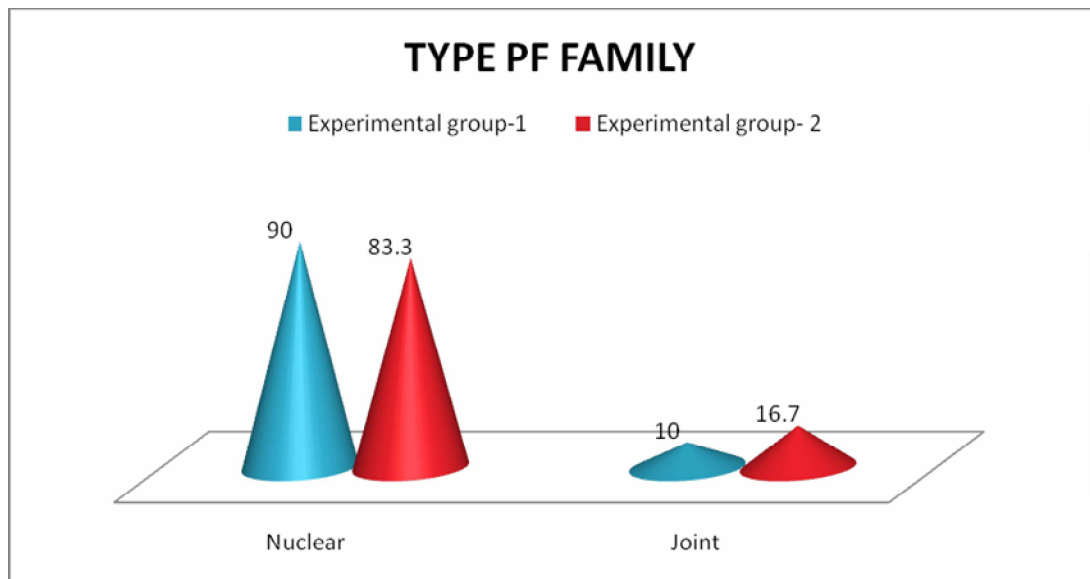
**FIGURE: 6**



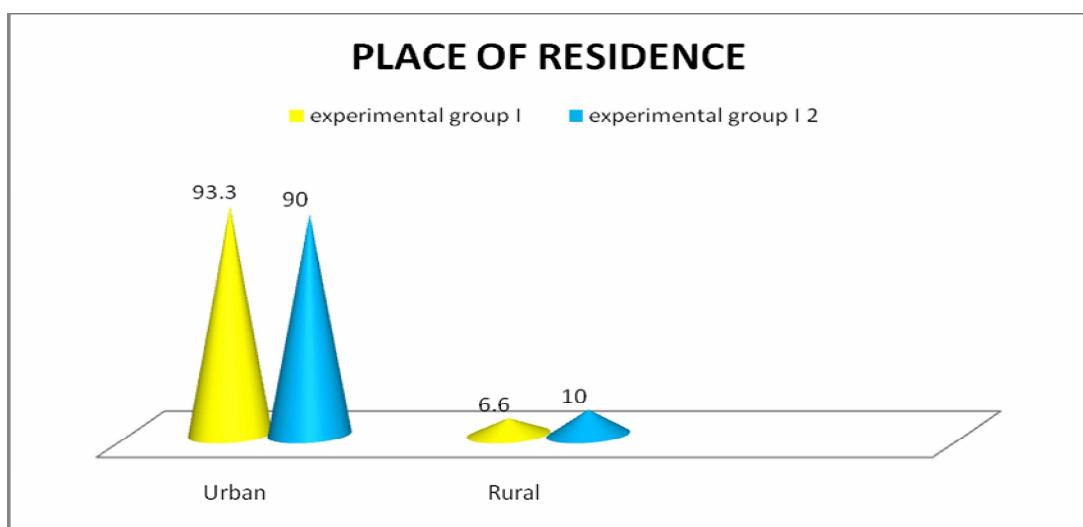
**FIGURE: 7**



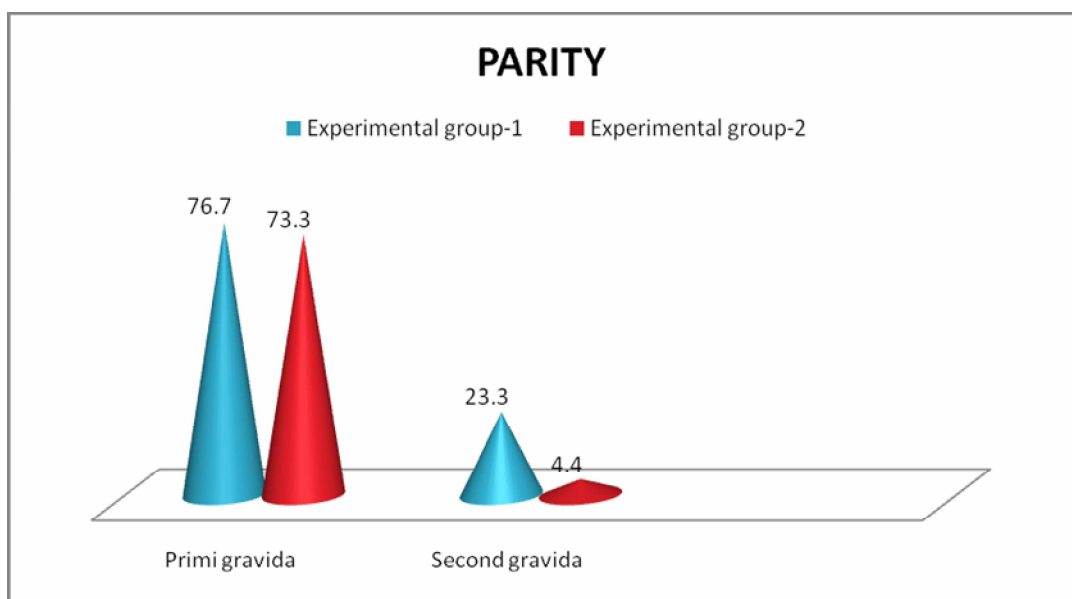
**FIGURE: 8**



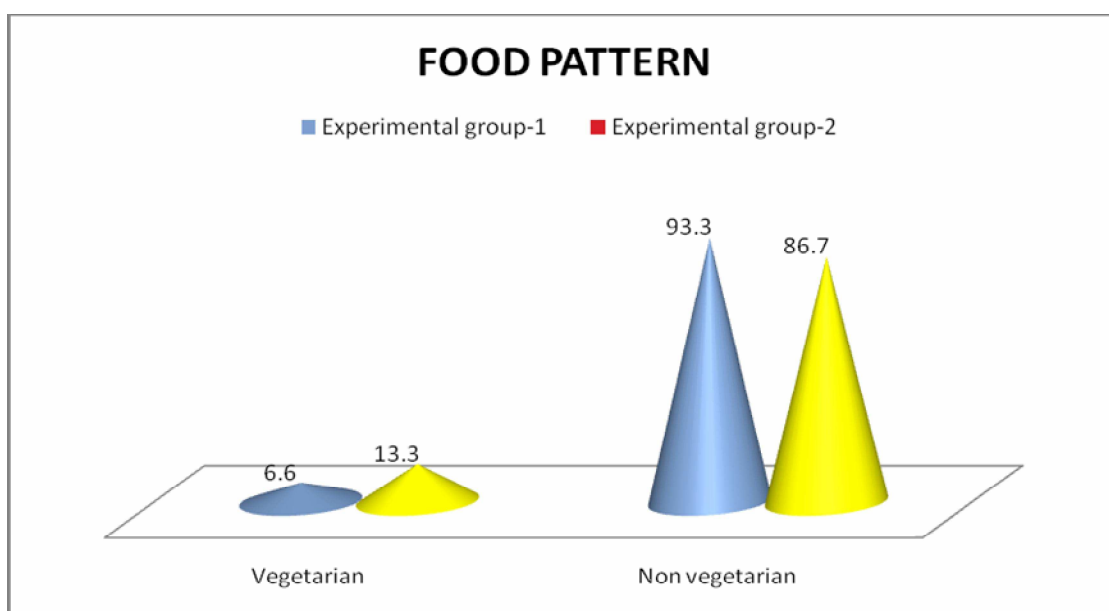
**FIGURE: 9**



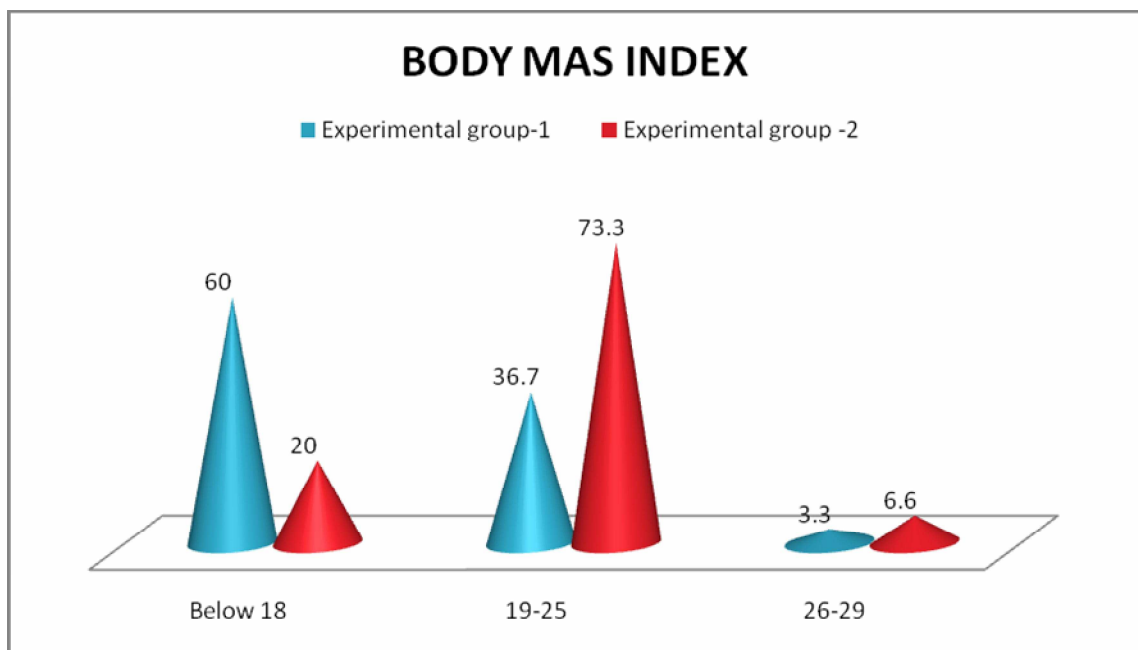
**FIGURE: 10**



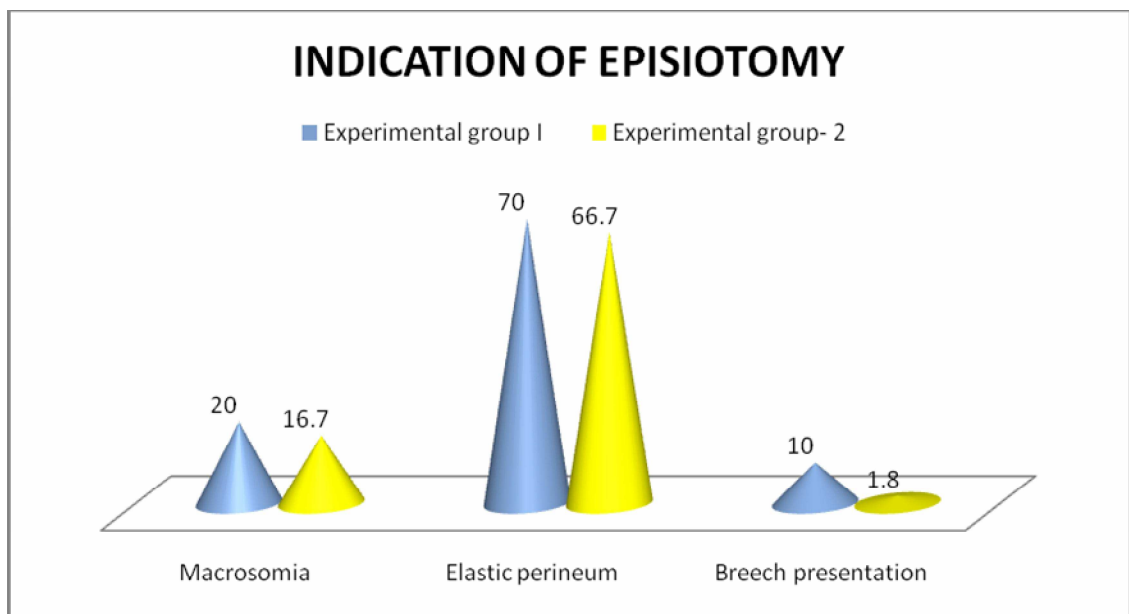
**FIGURE: 11**



**FIGURE: 12**

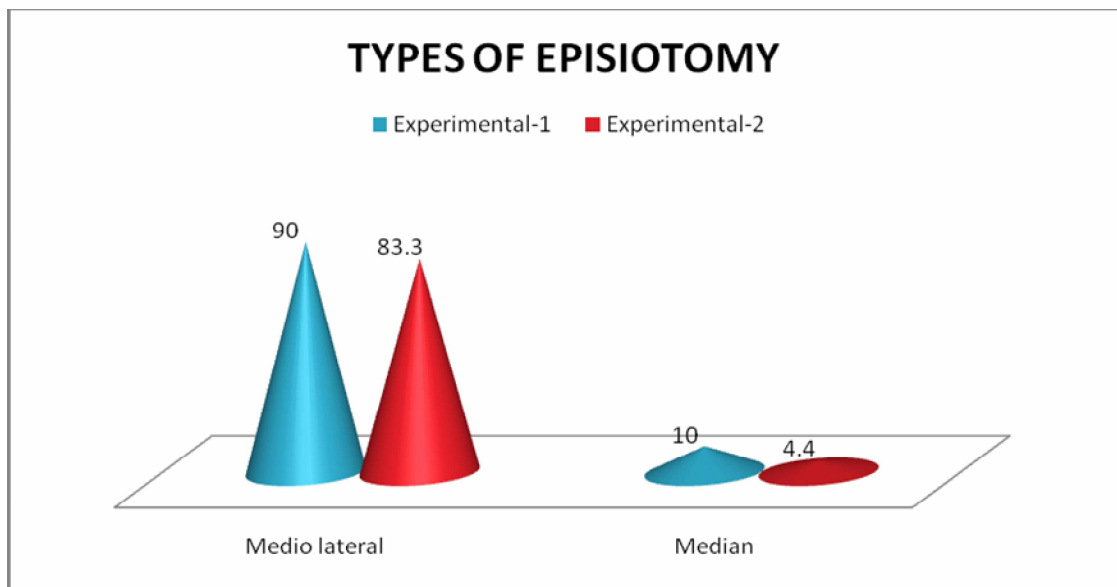


**FIGURE: 13**

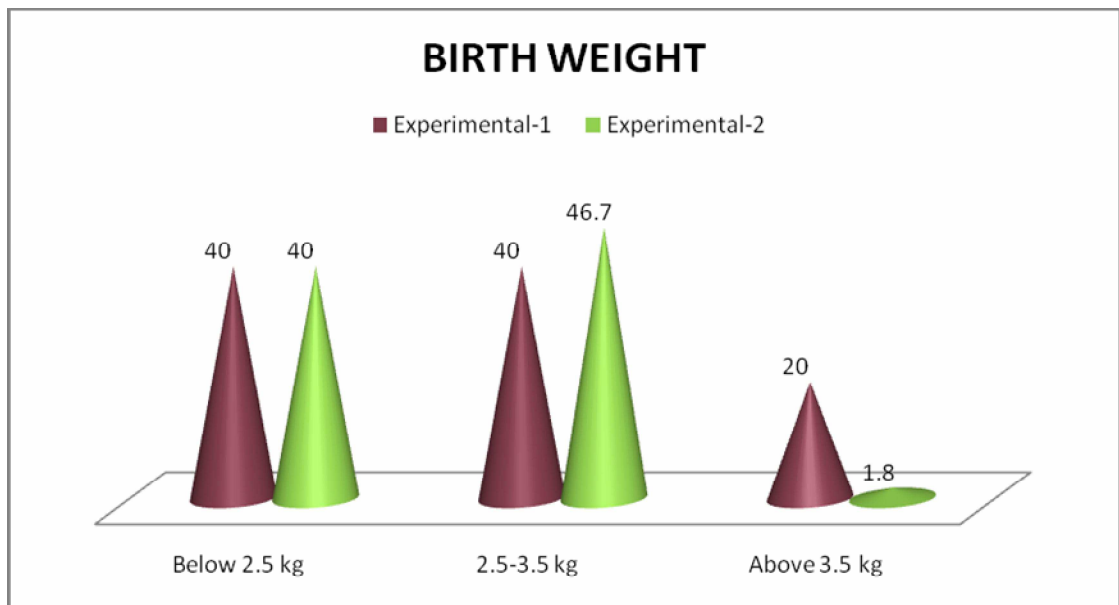




**FIGURE: 14**



**FIGURE: 15**



## SECTION: 2

Assessment of pre test levels of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -2.

**TABLE: 4**

Assessment of pre test levels of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -2.

	Mean	Standard deviation	Paired t value	Mean difference
Experimental group-1	16.5	2.2884	0.90	1.100 P=0.0670
Experimental group-2	17.6	2.2755		

\* Significant at  $P \leq 0.05$ .

**Table: 4** represent the pre test levels of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -2.

Among Experimental group-1 having 16.5 score, where as Experimental group-2 having 17.6 score and the difference is 0.90. This difference is small and it is not statistically significant. It was confirmed by using paired t -test.

**TABLE: 5**

Percentage of pre test episiotomy wound among experimental group-1 and

Episiotomy wound	Group				Chi square test		
	Experimental group-1		Experimental group-2		Calculated value	Table value	Significance
	F	%	F	%			
Good healing	0	0	0	0	0.6916	38.885	P=0.4050 0.05 NS
Average healing	22	73.3	19	63.3			
Poor healing	8	26.67	11	36.67			

experimental group -2.

\* Significant at  $P \leq 0.05$

**Table: 5** shows the Percentage distribution of pre test episiotomy wound among experimental group-1 and experimental group -2.

Among Experimental group-1, none of them are having good wound healing, 73.3% of them having average wound healing and 26.67% of them are having poor wound healing. In Experimental group-2, none of them are having good wound healing, 63.3% of them having average wound healing and 36.67% of them are having poor wound healing. Statistically there is no significant difference between Experimental group-1 and Experimental group-2. It was confirmed by using chi square test.

### SECTION: 3

Assessment of post test levels of episiotomy wound among the postnatal mothers in experimental group-1 and experimental group -2.

**TABLE: 6**

**Post test mean standard deviation and mean difference**

	Mean	Standard deviation	Paired t value	Mean difference
Experimental group-1	9.8	1.6886	2.73	3.100 P<0.0001
Experimental group-2	12.9	2.6369		

\* Significant at  $P \leq 0.05$

**Table: 6** shows the Post test mean standard deviation and mean difference of episiotomy wound among experimental group-1 and experimental group -2.

Among Experimental group-1 having 9.8 score where as Experimental group-2 having 12.9 score and the difference is 3.100. This difference is large and it is not statistically significant. It was confirmed by using paired t -test.

**TABLE: 7**

Percentage distribution of post test episiotomy wound among experimental group-1 and experimental group -2

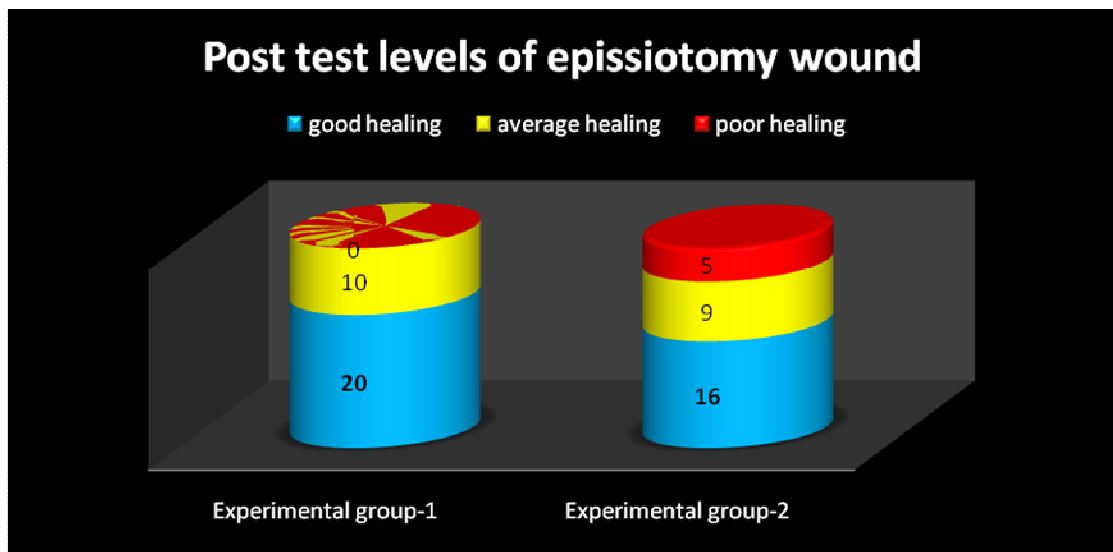
Episiotomy wound	Group				Chi square test		
	Experimental group-1		Experimental group-2		Calculated value	Table value	Significance
	F	%	F	%			
Good healing	20	66.7	16	53.3	5.966	38.885	P=0.0506 NS
Average healing	10	33.3	9	30			
Poor healing	0	0	5	16.7			

\* Significant at  $P \leq 0.05$

**Table: 7** shows the Percentage distribution of post test episiotomy wound among experimental group-1 and experimental group -2.

Among Experimental group-1, 66.7% of them are having good wound healing, 33.3% of them having average wound healing and none of them are having poor wound healing. In Experimental group-2, 53.3% of them are having good wound healing, 30% of them having average wound healing and 16.7% of them are having poor wound healing. Statistically there is no significant difference between Experimental group-1 and Experimental group-2. It was confirmed by using chi square test.

**FIGURE: 16**



**FIGURE: 17**





#### SECTION: 4

Compare the significant difference between pre test and post test level of experimental group-1 and experimental group - 2 among the postnatal mothers on levels of episiotomy wound.

**TABLE: 8**

**Comparison of pre test and post test assessment of episiotomy wound.**

Group	Assessment	No. of mothers	Mean	SD	Mean difference	Paired t test
Experiment group-1	Pre test	30	16.5	2.2884	-6.700	-17.84 P=0.00001*** (S)
	Post test		9.8	1.6886		
Experiment group-2	Pre test	30	17.6	2.2755	-4.700	-13.97 P=0.00001*** (S)
	Post test		12.9	2.6369		

\* Significant at  $P \leq 0.05$ , \*\* highly significant at  $P \leq 0.01$ , \*\*\* Very highly significant at  $P \leq 0.001$

**Table: 8** shows the Comparison of pre test and post test assessment of wound among experimental group-1 and experimental group -2.

Among Experimental group-1 pre test and post test difference wound healing score -6.70, whereas Experimental group-2 pre test and post test difference wound healing score -4.700. This difference is statistically significant. It was confirmed by using paired t -test.

**TABLE: 9**

**Effectiveness of the study**

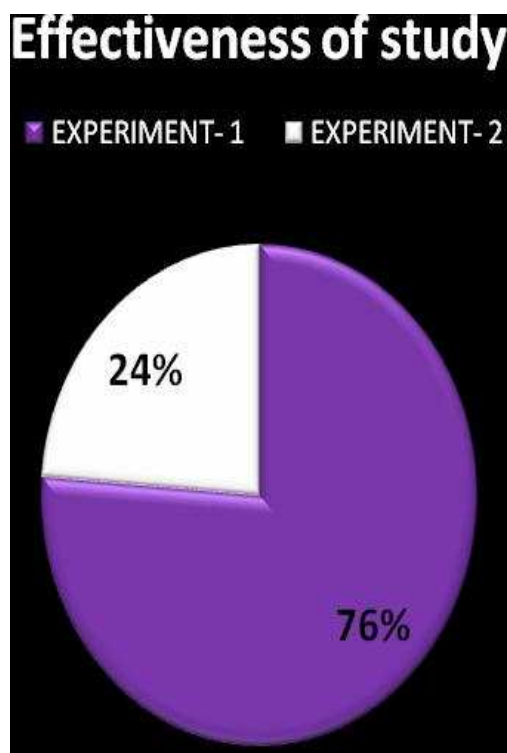
<b>Group</b>	<b>Maximum REEDA score</b>	<b>Pre test</b>	<b>Post test</b>	<b>Mean difference</b>	<b>Mean difference with 95% confidence interval</b>	<b>Percentage difference with 95% confidence interval</b>
Experiment group-1	15	16.53	9.8	-6.700	-6.700	
Experiment group-2	15	17.66	12.93	-4.700	-4.700	

\* Significant at  $P \leq 0.05$

**Table: 9** shows the effectiveness of pre test and post test assessment of wound healing status among experimental group-1 and experimental group -2.

The above table shows that the experiment group-1 mothers are benefited ----%, where as experiment group-2 benefited only ---%. This difference shows the **Effectiveness of lavender oil sitz bath on episiotomy wound among postnatal mother.**

**FIGURE: 18**



## SECTION: 5

Assessment of association between the post test scores of wound among the postnatal mothers in experimental group-1 and experimental group – 2 with demographic variables..

**TABLE: 10**

Assess the association of the post test level of episiotomy wound among the postnatal mothers in experimental group – 1 with the selected demographic variables.

S. No	Demographic variables	Level of wound				Chi square	significant
		Mild		Moderate			
		F	%	F	%		
1	Age in years					2.466 P=0.4814	0.05 NS
	19-22 years	7	23.	5	16.7		
	23-26 years	9	3	5	16.7		
	27-30 years	1	30	-	-		
	Above 30 years	3	3.3	-	-		
2	Educational status					0.025 P=0.9857	0.05 NS
	Primary education	6	20	3	10		
	High school graduate	13	43.	7	23.3		
		1	3	-	-		
			3.3				
3	Occupation					0.7 P=0.7046	0.05 NS
	Coolie worker	1	3.3	-	-		
	Self employee	6	3	4	13.3		
	House wife	13	20	6	20		
			43.				
4	Monthly income					0.576 P=0.7497	0.05 NS
	3000-5000	18	60	8	26.6		
	5001-7000	2	6.6	2	6.67		
	Above 7000	-	7	-			
5	Types of family					1.67 P=0.1962	0.05 NS
	Nuclear	17	56.	10	33.3		
	Joint	3	7	-			
			10				

6	Place of residence c) Urban d) Rural	18 2	60 6.6 7	10 -	33.3	1.071 P=0.3007	0.05 NS
7	Parity c) Primi gravida d) Second gravid	15 5	50 16. 7	8 2	26.6 6.67	0.09 P=0.7641	0.05 <NS
8	Food pattern c) Vegetarian d) Non vegetarian	1 19	3.3 3 63. 3	1 9	3.33 30	0.2678 P=0.6048	0.05 <NS
9	Body mass index(BMI) d) Below 18 e) 19-26- f) 30-35 above	12 8 -	40 26. 6	6 3 1	20 10 3.33	2.18 P=0.3362	0.05 <NS
10	Indication of Episiotomy d) Macrosomia e) Elastic perineum f) Breech presentation	3 14 3	10 46. 7 10	3 7 -	10 23.3 23.3	2.25 P=0.3246	0.05 <NS
11	Type of Episiotomy c) Medio lateral d) Median	18 2	60 6.6 7	9 1	30 3.33	0 P=1	0.05 <NS
12	Birth weight of the baby d) Below 2.5kg e) 2.5-3.5 kg f) Above 3.5 kg.	8 9 3	26. 6 30 10	4 4 2	13.3 13.3 6.67	0.1384 P=0.9331	0.05 <NS

\* Significant at  $P \leq 0.05$

**TABLE: 10** represent the association of the post test level of episiotomy wound among the postnatal mothers in experimental group – 1 with the selected demographic variables.

The above table shows there is no association between episiotomy wound score and demographic variables of experimental group-1. Statistical significance was calculated using chi square test.

**TABLE: 11**

Assess the association between the post test levels of episiotomy wound among the postnatal mothers in experimental group –2 with the selected demographic variables.

S.No	Demographic variables	Level of wound						Chi square value	Table value	Significant
		Mild		Moderate		Severe				
		F	%	F	%	F	%			
1	Age in years							3.8682 P=0.2760	9.488	0.05
	19-22 years	7	23.3	3	10	3	10			
	23-26 years	7	23.3	4	13.3	2	6.6			
	27-30 years	1	3.33	2	6.67	-	7			
	Above 30 years	1	3.33	-	-	-	-			
2	Educational status							0.4367 P=0.8038	7.815	0.05
	Primary education	11	36.7	5	16.7	3	10			
	High school graduate	5	16.7	4	13.3	2	6.6			
		-	-	-	-	-	7			
3	Occupation							1.677 P=0.4323	7.815	0.05
	Coolie worker	2	6.67	-	-	-	-			
	Self employee	9	30	6	20	5	16.			
	House wife	5	16.7	3	10	-	7			
4	Monthly income							6.25 P=0.0439*	7.815	0.05 S
	3000-5000	15	50	5	16.7	5	16.			
	5001-7000	1	3.33	4	13.3	-	7			
	Above 7000	-	-	-	-	-	-			
5	Types of family							2 P=0.1572	5.991	0.05
	Nuclear	12	40	8	26.6	5	16.			
	Joint	4	13.3	1	3.33	-	7			
6	Place of residence							8.70 P=0.0031*	5.991	0.05 S
	Urban	16	53.3	6	20	5	16.			
	Rural	-	-	3	10	-	7			
7	Parity							5.319 P=0.0210*	5.991	0.05 S
	Primi gravida	9	30	8	26.6	5	16.			
	Second gravid	7	23.3	1	3.33	-	7			
8	Food pattern							1.394 P=0.2377	5.991	0.05
	Vegetarian	2	6.67	2	6.67	-	-			
	Non vegetarian	14	46.7	7	23.3	5	16. 7			

9	Body mass index(BMI) Below 18 under weight 19-25normal weight 26-29over weight	5 10 1	16.7 33.3 3.33	1 7 1	3.33 23.3 3.33	- 5 -	- 16. 7 -	1.648 P=0.4386	7.815	0.05
10	Indication of Episiotomy Macrosomia Elastic perineum Breech presentation	4 11 1	13.3 36.7 3.33	1 4 4	3.33 13.3 13.3	- 5 -	- 16. 7 -	1.510 P=0.4700	7.815	0.05
11	Type of Episiotomy Medio lateral Median	12 4	40 13.3	8 1	26.6 3.33	5 -	16. 7 -	2 P=0.1572	5.991	0.05
12	Birth weight of the baby ? Below 2.5 kg 2.5-3.5 kg Above 3.5 kg.	9 5 2	30 16.7 6.67	3 5 1	10 16.7 3.33	- 5 -	- 16. 7 -	2.336 P=0.3109	7.815	0.05

\* Significant at  $P \leq 0.05$

**TABLE: 11** represent the association between the post test level of episiotomy wound among the postnatal mothers in experimental group –2 with the selected demographic variables.

The above table shows association between level of wound score and demographic variables of experimental group-1. Monthly income, place of residence urban area mothers and primi para mothers are healed more than others. Statistical significance was calculated using chi square test.

# **CHAPTER - V**

## **DISCUSSION**



## **CHAPTER - V**

### **DISCUSSION**

This chapter deals about the discussion of the study with appropriate statistical analysis and the finding based on the objectives and hypothesis of the study.

The study was a quasi experimental study. The problem stated as “a comparative study to assess the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among postnatal mothers at selected primary health centers, Trichy.

#### **Distribution of sample characteristics**

Twelve demographic variables were assessed. They were age, educational status, parity, place of residence ,history of present medical illness, birth weight of the baby, types of episiotomy ,occupation, types of family, body mass index (BMI), indication for episiotomy.

Regarding the age, maximum 14(46.7%) postnatal mothers were in age group of 23 to 26 yrs, 12(40 %) postnatal mothers were in age group of 19 to 22 yrs, 3(10%) postnatal mothers were in age group of above 30 yrs, 1(3.3%) postnatal mother were in age group of 27 to 30 yrs in experimental group- 1. where as in experimental group –2, 13(43.3%) postnatal mothers were in age group of 19 to 26 yrs, 3(10%) postnatal mothers were in age group of 27 to 30 yrs, 1(3.3%) postnatal mother were in age group of above 30 yrs.

Regarding the educational status, maximum 20(66.7%) postnatal mothers studied high school, 9(30%) postnatal mothers studied primary education, 1(3.3%) postnatal mother studied to graduate in experimental group- 1. where in experimental group –2, 19(63.3%) postnatal mothers studied primary education, 11(36.7%) postnatal mothers studied high school and none of them in graduate.

Regarding the occupation, maximum, 19 (63.3%) postnatal mothers were working as house wife ,10(33.3%) postnatal mothers working as self employee,1(3.3%) postnatal mother belongs to coolie worker in experimental group-1 ,where as in experimental group-2, 20 (66.7%) postnatal mothers were working as self

employee,8(26.7%) postnatal mothers working as house wife,2(6.6%) postnatal mother belongs to coolie worker.

Regarding the monthly income, in experimental group-1 maximum 26(86.7%) postnatal mothers were earned 3000-5000,4(13.3%) postnatal mothers were earned 5001-7000 and none of them earned above 7000. In experimental group-2, 25(83.3%) postnatal mothers were earned 3000-5000,5(16.7%) postnatal mothers were earned 5001-7000 and none of them earned above 7000.

Regarding the types of family, maximum 27 (90%) postnatal mothers were belongs to nuclear family,3(10%) postnatal mothers were belongs to joint family in experimental group-1. where as in in experimental group-2, 25(83.3%) postnatal mother belongs to nuclear family,5(16.7%) postnatal mothers were belongs to joint family.

Regarding the place of residence, maximum 28(93.3%) postnatal mothers were living in urban area and 2(6.6%) postnatal mothers were living in rural area in experimental group -1. where as in in experimental group-2, 27(90%) postnatal mothers were living in urban area and 3(10%) postnatal mothers were living in rural area.

Regarding the parity, maximum 23 (76.6%) postnatal mothers were belongs to primi gravida, 7(23.3%) postnatal mothers were belongs to second gravid in experimental group -1. where as in in experimental group -2, 22(73.3%) postnatal mother belongs to primi gravida,8(26.7%) postnatal mothers were belongs to second gravida.

Regarding the food pattern, maximum 28 (93.3%) postnatal mothers were belongs to non vegetarian, 2(6.6%) postnatal mothers were belongs to vegetarian in experimental group -1. where as in in experimental group -2, 26(86.7%) postnatal mother belongs to non vegtarian,4(13.3%) postnatal mothers were belongs to vegetarian.

Regarding the body mass index(BMI),maximum 18 (60%) postnatal mothers were having (malnourished) below 18, 11(36.7%) postnatal mothers were having normal BMI 19-25,1(3.3%) postnatal mothers belongs to moderately obese BMI 26-29 in experimental group -1. in experimental group -2,6(20%) postnatal mothers were having (malnourished) below 18, 22(73.3%) postnatal mothers were having normal BMI 19-25, 2(6.6%) postnatal mothers belongs to moderately obese BMI 26-29.

Regarding the indication of episiotomy, maximum 21(70%) postnatal mothers had elastic perineum, 6(20%) postnatal mothers of fetus had macrosomia and 3(10%) postnatal mothers of fetus had breech presentation in experimental group -1. where as in experimental group -2, 20(66.7%) postnatal mothers had elastic perineum and 5(16.7%) postnatal mothers of fetus had macrosomia and breech presentation.

Regarding the types of episiotomy, maximum 27(90%) postnatal mothers were delivered the newborn with the help of medio lateral and 3(10%) postnatal mothers were delivered the newborn with the help of median episiotomy procedure in experimental group -1. where as in experimental group -2, 25(83.3%) postnatal mothers were delivered the newborn with the help of medio lateral and 5(16.7%) postnatal mothers were delivered the newborn with the help of median episiotomy procedure.

Regarding the birth weight of the baby, maximum 12(40%) postnatal mothers were delivered between below 2.5 to 3.5 kg of newborn and 6(20%) postnatal mothers were delivered in the kg of (above 3.5) in experimental group -1. where as in experimental group -2, 12(40%) postnatal mothers were delivered below 2.5 kg of newborn, 14(46.7%) postnatal mothers were delivered between 2.5 to 3.5 kg of newborn and 4(13.3%) postnatal mothers were delivered in the kg of (above 3.5).

**The findings of the study as per the objectives were discussed under the following headings**

1. To assess the level of episiotomy wound among postnatal mothers after lavender oil sitz bath and cold gel pack application.
2. To compare the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound.
3. To find out the association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application.

**OBJECTIVE 1: Assessment of the level of episiotomy wound among postnatal mothers after lavender oil sitz bath and cold gel pack application.**

The result shows that the frequency and percentage distribution of pre test level of episiotomy wound. Among 30 samples 8 (26.67%) mothers had poor wound healing, 22 (73.3%) mothers had moderate wound healing.

In post test of lavender oil sitz bath, among 30 samples 20(66.7%) mothers had mild wound healing and 10(33.3%) mothers had moderate wound healing

The result shows that the frequency and percentage distribution of pre test level of episiotomy wound. Among 30 samples 11 (36.67%) mothers had poor wound healing, 19(63.3%) mothers had average wound healing.

In post test of ice gel pack application, among 30 samples 16(53.3%) mothers had good wound healing and 9(30%) mothers had average wound healing and 5(16.7%) mothers had poor wound healing.

This objective is supported by **Hur MH, Han SH**(2014) A study was designed to verify the effect of aromatherapy on a postpartum mother's perineal healing by measured using the REEDA scale. The research design was a clinical trial. The methods of aromatherapy were applied sitz bath or soap application using essential oils with Lavender. The subjects of this experiment were postpartum mothers who delivered vaginally with an episiotomy. They were allocated to one of three groups; the aroma-sitz bath group, aroma-soap application group or control group. The data were analyzed by repeated measures of ANOVA, ANCOVA, chi2-test, and multiple response analysis via SPSS program. The REEDA scale was significantly low in the experimental group at postpartum 5th and 7th days ( $P=0.009$ ,  $P=0.003$ ), respectively. Most were observed 'few'(5-10 bacteria per field) bacteria in the smears of episiotomy wound. These findings indicate that postpartum aromatherapy for perineal care could be effective in healing the perineum

**Thus the hypotheses-(H1):There will be a significant difference in the level of episiotomy wound healing among postnatal mothers in primary health centre after cold gel pack application at  $p<0.05$  level of significant was accepted.**

**OBJECTIVE: 2 To compare the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound.**

The analysis revealed that the experimental group-1 pre test mean value 16.5 with standard deviation 2.2884, post test mean value 9.8 with standard deviation 1.6886 of wound has significant to the experimental group-2 pre test mean value 17.6 with standard deviation 2.2755, post test mean 12.9 with standard deviation 2.6369 of wound healing.. Among Experimental group-1 pre test and post test difference wound score -6.700, whereas Experimental group-2 pre test and post test difference wound score -4.700. The p value is  $P=0.00001$ . This difference is statistically significant. It was confirmed by using paired t -test. So the lavender oil sitz bath was effective.

This objective is supported by **Romberger, (2005)** Reported that portable bath or sitz bath are often prescribed by doctors as this type of therapy gives much relief from the discomfort and promotes a more rapid healing of the vaginal and rectal areas following incisions at the time of childbirth or rectal surgery. The study was reported that effects of heat and cold on the perineum after episiotomy / laceration (Hill 2004). Tool was used to evaluate the effects of heat and cold on the perineum during the first 24 hours after delivery. Ninety patients were randomly assigned to one of three treatment groups. Treatment consisted of 30 subjects applying a warm perineal pack, 30 applying a cold perineal pack and 30 taking a warm sitz bath. Data analysis of variance indicated no differences in the REEDA scale of these treatments

**Thus the hypotheses- (H2):There will be a significant difference between the lavender oil sitz bath and Cold gel pack application on episiotomy wound among postnatal mothers in primary health centre was accepted.**

**OBJECTIVE:3 To find out the association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application.**

In the experimental group-1 there was no significant association between the demographic variables.

In the experimental group-2 there was association between level of wound score and demographic variables of experimental group-1. Monthly income, place of residence urban area mothers and primi para mothers are healed more than others. Statistical significance was calculated using chi square test.

This objective is supported by **Katayon Vakilian** (2010) Episiotomy is the most common perineal incision in obstetric and midwifery. Nowadays alternative and complementary methods such as Aromatherapy using essential oils are established as an alternative therapy. This research was carried out to assess the effect of lavender oil in wound healing. This randomized control trial was conducted on 120 primiparous women with singleton pregnancy, without any acute and chronic disease and allergy who had undergone normal spontaneous vaginal delivery and episiotomy. They were randomly allocated in case and control groups. Case group received lavender oil and controls received Povidone-iodine. Incision sites were assessed on the 10th day postpartum. 25 out of 60 women in lavender group and 17 mothers in control group had no pain ( $p = 0.06$ ). There was no significant difference between two groups in surgery site complications. However, redness in lavender group was significantly less than controls ( $p < 0.001$ ). This study suggests application of lavender essential oil instead of Povidone-iodine for episiotomy wound care.

**Thus the hypotheses-(H3): There will be a significant association between episiotomy wound with selected demographic variables among postnatal mothers who are all undergoing lavender oil sitz bath and cold gel pack application in primary health centre at  $p < 0.05$  level of significant was accepted.**

**CHAPTER - VI**  
**SUMMARY AND CONCLUSION**

## **CHAPTER - VI**

### **SUMMARY AND CONCLUSION**

The present study was conducted to assess the wound on episiotomy of postnatal mothers. The design was quasi experimental design. A total 60 postnatal mothers (30 mothers in experimental group -1 and 30 mothers in experimental group -2) who meet the inclusion and exclusion criteria were selected as a sample from the selected primary health centers at Trichy. The samples were selected by convenient sampling technique. The investigators first introduced herself to the samples and developed rapport with them. After the selection of samples, the interview was being conducted with the instrument.

In the post test of experimental group -1 wound healing was 20 mothers had good wound healing and 10 had average wound healing. Where as in experimental group -2 wound healing was 16 mothers had good wound healing, 9 mothers had average wound healing and 5 had poor wound healing.

The analysis revealed that the experimental group-1 pre test mean value 16.5 with standard deviation 2.2884, post test mean value 9.8 with standard deviation 1.6886 of wound healing has significant to the experimental group-2 pre test mean value 17.6 with standard deviation 2.2755, post test mean 12.9 with standard deviation 2.6369 of wound healing.. Among Experimental group-1 pre test and post test difference wound healing score -6.700, whereas Experimental group-2 pre test and post test difference wound healing score-4.700. The p value is  $P=0.00001$ . This difference is statistically significant. It was confirmed by using paired t -test. So the lavender oil sitz bath was effective.

The statistical analysis to determine the association between the post test levels of wound regarding lavender oil sitz bath among the postnatal mothers with their selected demographic variables was calculated by using “chi square test”. The results were stated that in experimental group -1 (lavender oil sitz bath) towards wound healing there is no significant association between the demographic variables Where as in the experimental group-2 (Cold gel pack application) there was a association between level of wound score and demographic variables of experimental



group-1. Monthly income, place of residence urban area mothers and primi para mothers are healed more than others. Statistical significance was calculated using chi square test.

## **CONCLUSION**

The main objective of the was to determine the effectiveness lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers at selected primary health centres at Trichy. The statistical analysis revealed that there is significant difference between post test level of wound healing scores of experimental group -1 indicate the given lavender oil sitz bath was effective than cold gel pack application.

## **NURSING IMPLICATION**

The findings of the study have certain important implications for the nursing services, education, research and nursing administration.

## **NURSING SERVICE**

Nurses are act as a educator, leader, supervisor, protector, advocator and team member in various situation of work. Lavender oil sitz bath given to the postnatal mothers on episiotomy wound to protect from inflammation. The findings of the study will help the postnatal mothers to protect from inflammation for subsequent delivery.

## **NURSING EDUCATION**

The result of the study will help to the nurse educator to import the knowledge regarding lavender oil sitz bath and cold gel pack application on episiotomy wound.

The study emphasis the need of educating the nursing personal, non nursing personal and the public through in service or continuing programme to update their knowledge and skills in educating the mothers regarding lavender oil sitz bath and cold gel pack application.

## **NURSING RESEARCH**

The study can be a baseline for further studies to build upon. The study can be conducted in various group of postnatal mothers (LSCS).

## **NURSING ADMINISTRATION**

- The findings of the present study will help the nurse to organize and plan for educational programme by using various teaching methods and audiovisual aids.
- The nurse administrator can recommend to indented sitz bath basin in post natal ward. So that the nurses can provide daily routine sitz bath to improve episiotomy wound.
- The nurse administrator enables the nurse to update their knowledge in the latest innovations.

## **RECOMMENDATION**

- The comparative study can also be done to assess the effectiveness of lavender oil sitz bath among LSCS mothers.
- The study can be done on large sample size to generalize the effectiveness of lavender oil sitz bath.
- The hospital authority can practice lavender oil sitz bath to improve episiotomy wound.

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# **ANNUXURE**

## **ANNEXURE- A**

### **LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY**

Dated:

Trichy.

**From,**

M/S.Mable vinolia,  
II Year, M.Sc Nursing Student,  
Indira college of Nursing, Konalai,  
Trichy.

**To**

**The Block Medical officer,**  
Primary health centre,  
Sirugambur.

**Through,**

The Principal ,  
Indira College of Nursing, Konali, Trichy.

**Respected Sir/Mam,**

**Subject:** Permission to conduct research study among mother with episiotomy wound at sirugambur Block primary health centre-reg;

I am M/s.Mable vinolia studying II year M.Sc Nursing (obstetrics and gynaecological Nursing Department) in Indira college of Nursing, Konalai. As part of my M.Sc Nursing Post Graduate Degree Course, I am conducting a research project on postnatal mothers with episiotomy. In this regard I will be comparing the effects of Lavender oil sitz bath to one group and cold gel pack application to another group on the episiotomy wound healing among postnatal mothers. So I kindly request your permission to conduct data collection for this study in your primary health centre among the postnatal mothers. Anticipating cooperation from your esteemed self. Kindly do the needful.

Thanking you

Yours sincerely,

301623251



## **ANNUXURE - B**

### **LETTER SEEKING EXPERT'S OPINION FOR CONTENT VALIDITY**

Dated:  
Trichy.

**From,**

M/S.Mable vinolia,  
II Year, M.Sc Nursing Student,  
Indira college of Nursing, Konalai,  
Trichy.

**To**

**Respected Sir/Mam,**

**Subject:** Requisition for content validity tool.

I am M/s.Mable vinolia studying II year M.Sc Nursing (obstetrics and gynaecological Nursing Department) in Indira college of Nursing, Konalai. As part of my M.Sc Nursing Post Graduate Degree Course, I am conducting a research project on "**A study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers in primary health centre at trichy district**". A tool has been developed for the research study. I am sending the study above stated for your expert and valuable opinion. I will be thankful for your kind consideration. Kindly return it to the undersigned

Thanking you

Yours sincerely,  
301623251

## **ANNEXURE – C**

### **OBSTETRICAL AND GYNAECOLOGICAL NURSING**

#### **LIST OF EXPERTS OF VALIDATION**

**1. DR. MEENA RAMKUMAR, MBBS, DGO.,**

Sri Raja Rajeswari nursing home,  
Thiruvanaikovil,  
Trichy -5

**2. MRS.CHRISTY SAHAYA RUBY JOSEPH,M.Sc(N).,**

Reader,  
ServiteCollege of nursing,  
Trichy.

**3. MRS.T.SUGANTHI, M.Sc (N).,**

Associate professor,  
Jennies College of nursing,  
Trichy.

**4. MRS.S.KALPANA,M.Sc(N).,**

Associate professor,  
M.A.M College of nursing,  
Trichy.

**5. MR.SENTHIL KUMAAR, S.M.Sc.,**

External professor of statistics,  
Trichy.

## **ANNUXURE - D**

### **CONTENT VALIDITY CERTIFICATE**

Hereby, I certify that I have validated the tool of 301623251 studying II year M.Sc (Nursing) course (Obstetrics and Gynaecology) at Indira college of Nursing, Trichy. Working on the dissertation of “**A study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers in primary health centre at trichy district**”.

**Signature of the expert:**

**Name:**

**Designation:**

**Date:**

**Place:**

**ANNUXURE - E**  
**CERTIFICATE FOR ENGLISH EDITION**  
**TO WHOMEVER IT MAY CONCERN**

This is to certify that the tool developed by 301623251 II Year M.Sc Nursing student of Indira College of Nursing for dissertation “**A comparative study to evaluate the Effectiveness of Lavender Oil Sitz Bath and Ice gel pack application on episiotomy Wound among Post natal Mothers in Primary Health Centre at Trichy District**”edited for English language appropriateness by **Mrs. Mable nirmala, M.A,B.Ed.,**

**SIGNATURE:**

**NAME:**

**DESIGNATION:**

**INSTITUTION:**

**ANNUXURE – F**  
**CERTIFICATE FOR TAMIL EDITION**  
**TO WHOMSOEVER IT MAY BE CONCERN**

This is to certify that the tool developed by 301623251 II Year M.Sc Nursing student of Indira College of Nursing for dissertation “**A comparative study to evaluate the Effectiveness of Lavender Oil Sitz Bath and Ice gel pack application on episiotomy Wound among Post natal Mothers in Primary Health Centre at Trichy District**” edited for Tamil language appropriateness by **Mr. M.A.,M.Phil.,B.Ed.,**

**SIGNATURE:**

**NAME:**

**DESIGNATION:**

**INSTITUTION:**

**ANNUXURE – G**

**CONSENT FORM- ENGLISH**

**NAME:**

**DATE:**

I have been well explained about the lavender oil sitz / Cold gel pack application bath and its importance, Here by I agree to participate in this study if any complications arises the doctors, nurses and the management is not responsible for that. I have given full freedom to leave the study at anytime and I am assured by the researcher that my information will be confidential.

**SIGNATURE**

**ANNUXURE – H**

**CONSENT FORM- TAMIL**

**ஓப்புதல் அறிக்கை**

பெயர்:

நாள்:

எனக்கு இந்தசெவிலியஆய்வினை (பிரசவத்தின் போதுபிறப்புறுப்பில் இடப்பட்டதையலில் லாவண்டர் எண்ணெய் இடுப்புகுளியல் (அ)கூழ்மபனிஉறைநீர் வைத்தல்) பற்றிய முழு விபரம் விளக்கமாகஎடுத்துரைக்கப்பட்டது. இந்தஆய்வில் பங்குகொள்வதில் இருக்கும் நன்மைகள் மற்றும் பின் விளைவுகள் பற்றி முழுமையாக புரிந்து கொண்டேன். இந்த ஆய்வில் தானாக முன் வந்து பங்கு பெறுகிறேன். மேலும் எனக்கு இந்த ஆய்வில் இருந்து அந்தசமயத்திலும் விலகிக் கொள்ள முழு அனுமதி வழங்கப்பட்டுள்ளது. என்னுடைய விபரங்களை பார்வையிட்டு அதை ஆய்வில் பயன்படுத்திக் கொள்ள முழு அனுமதி அளிக்கிறேன். என்னுடைய பெயர் மற்றும் அடையாளங்களை இரகசியமாக வைத்துக் கொள்ளப்படும். என்றும் எனக்கு உறுதியளிக்கப்பட்டுள்ளது.

இப்படிக்கு

## ANNUXURE –I

### DEMOGRAPHIC VARIABLES- ENGLISH

**Name:**

**Height:**

**Weight:**

Please tick (✓) the correct answer in the box.

1. Age in years

a) 19-21 years

b) 22-25 years

c) 26-30 years

d) Above 30 years

☐☐☐☐

2. Educational status

a) Primary education

b) High school

c) graduate

☐☐☐

3. Occupation

a) Coolie worker

b) Self employee

c) House wife

☐☐☐

4. Monthly income

a) 3000-5000

☐



b) 5001-7000	<input type="checkbox"/>
c) Above 7000	<input type="checkbox"/>
5. Types of family	
a) Nuclear	<input type="checkbox"/>
b) Joint	<input type="checkbox"/>
6. Place of residence	
a) Urban	<input type="checkbox"/>
b) Rural	<input type="checkbox"/>
7. Parity	
a) Primi gravida	<input type="checkbox"/>
b) Second gravid	<input type="checkbox"/>
8. Food pattern	
a) Vegetarian	<input type="checkbox"/>
b) Non vegetarian	<input type="checkbox"/>
9. Body built (BMI)	
a) Below 18 under weight	<input type="checkbox"/>
b) 19-25normal weight	<input type="checkbox"/>
c) 26-29over weight	<input type="checkbox"/>
10. Indication of Episiotomy	
a) Macrosomia	<input type="checkbox"/>
b) Elastic perineum	<input type="checkbox"/>
c) Breech presentation	<input type="checkbox"/>

11. Type of Episiotomy

☐

a) Medio lateral

☐

b) Median

12. Birth weight of the baby

☐

a) Below 2.5 kg

☐

b) 2.5-3.5 kg

☐

c) Above 3.5 kg.

## ANNUXURE – J

### DEMOGRAPHIC VARIABLES- TAMIL

தன்னிலைவிபரக் குறிப்பு

பெயர் :

உயரம்:

நாள்:

எடை:

1.வயதுவருடங்களில்

அ.19-21வருடங்கள்

☐

ஆ. 22-25 வருடங்கள்

☐

இ. 25-30

☐

ஈ. 30 வயதுக்குமேல்.

☐

2. கல்வித் தகுதி

அ. ஆரம்பக் கல்வி

☐

ஆ. உயர்நிலைக் கல்வி

☐

இ. பட்டப்படிப்பு

☐

3.தொழில்

அ. கூலித் தொழிலாளி

☐

ஆ.சுயத் தொழில்

☐

இ. குடும்பத் தலைவி

☐

4.முாதவருமானம்

அ. ரூ.3000-5000

☐

ஆ. ரூ.5000-7000

☐

இ. ரூ.7000 -க்குமேல்

☐

5.குடும்ப வகை

அ.தனிக் குடும்பம்

☐

ஆ. கூட்டுக் குடும்பம்

☐

6.வசிக்கும் இடம்.

அ.கிராமம்

☐

ஆ.நகரம்.

☐

7. கருவுற்றிருக்கும் நிலை

அ. முதல் முறைகருவுற்றிருத்தல்

☐

ஆ. இரண்டாம் முறைகருவுற்றிருத்தல்.

☐

8. உடல் பருமன் (உடல் நிலைகுறியீட்டுஎண்)

அ. 18-க்கு கீழ் (உணவுபற்றாக்குறை)

☐

ஆ. 19-25 (சரியானஉடல் எடை)

☐

இ. 26-29 (சற்றுபருமனானஉடல் எடை)

☐

ஈ) 30-க்குமேல் (அதிகமானஉடல் எடை)

☐

9. உணவுப் பழக்கவழக்கம்

அ. சைவம்

☐

ஆ.அசைவம்

☐

10.பிறப்புறுப்பில் இடப்பட்டதையலுக்கானகாரணம்

அ.உடல் பருமனானபெரியகுழந்தை

☐

ஆ. மீள் பரப்புபிறப்புறுப்பு

☐

இ.குழந்தையின் இடுப்புதையல் வகை.

☐

11.பிறப்புறுப்பில் இடப்பட்டதையல் வகை.

அ. நடுப்பகுதியிலிருந்துபக்கவாட்டைநோக்கி

☐

ஆ. நடுப்பகுதியில்

☐

12. பிறந்தகுழந்தையின் எடை

அ. 2.5 கிகிக்குகீழ்

☐

ஆ. 2.5 கிகிமுதல் 3.5 கி.கி

☐

இ. 3.5 கி.கிக்குமேல்

☐

## ANNEXURE – K

### STANDARDIZED REEDA SCALE- ENGLISH

Points	Redness	Oedema	Ecchymosis	Discharge	Approximation
0	None	None	None	None	Close
1	Within 0.25 cm of the incision bilaterally	Perineal less than 1 cm from incision	Within 0.25 cm bilaterally or 0.5 cm unilaterally	Serum	Skin separation 3 mm or less
2	Within 0.5 cm of the incision bilaterally	Perineal and/or vulvar, between 1 to 2 cm from incision	Between 0.25 cm to 1cm bilaterally or between 0.5 cm to 2 cm unilaterally	Serosanguinous	Skin and subcutaneous fat separation
3	Beyond 0.5 cm of the incision bilaterally	Perineal and/or vulvar, greater than 2 cm from incision	Greater than 1 cm bilaterally or 2 cm unilaterally	Bloody, purulent	Skin, subcutaneous fat and fascial layer separation
Score					
				Total 15	

The level of Episiotomy wound healing is divided into 4 categories as follows.

Minimum: 0 Maximum: 15

Description	Score
Mild wound healing	0- 5
Moderate wound healing	6 - 10
Poor wound healing	11- 15

## ANNUXURE - L

### STANDARDIZED REEDA SCALE- TAMIL

ரீடாஅளவுகோல்

பெயர் :

நாள்:

வரிசைஎண்	கூறுகள்	முன் பரிசோதனை மதிப்பெண்	பின் பரிசோதனை மதிப்பெண்
1	சிவந்தத்தன்மை:- 0 -சிவந்தத்தன்மை இல்லாதிருத்தல் 1.பிறப்புறுப்பில் இடப்பட்டதையலில் 0.25 செ.மீஅளவுசிவந்துகாணப்படும். 2. அனைத்துதையல்களும் 0.5 செ.மீஅளவுசிவந்துகாணப்படும். 3. பிறப்புறுப்பில் இடப்பட்டதையல்களுக்குஅப்பால் சிவந்துகாணப்படுதல்.		
2.	வீக்கம்: 0- வீக்கம் இல்லாதிருத்தல். 1. பிறப்புறுப்பில் இடப்பட்டதையலில் ஒன்றுசெ.மீஅளவுவீக்கம் காணப்படுதல். 2. ஆனைத்துதையல்களிலும் வீக்கம் காணப்படுதல். 3. பிறப்புறுப்பில் இடப்பட்டதையல்களுக்குஅப்பால் காணப்படுதல்.		
3.	தோலுக்கடியில் இரத்தக்கோர்வை: 0-இரத்தக் கோர்வை இல்லாதிருத்தல். 1.0.25 செ.மீ இருபுறமும் அல்லது 0.5 செ.மீஒருபுறமும் இரத்தக் கோர்வை. 2. 0.25 செ.மீமுதல் 1 செ.மீவரைபக்கவாட்டிலும்		

	<p>அல்லது 0.5 செ.மீமுதல் 2 செ.மீவரைஒரேபக்கத்திலும் இரத்தக்கோர்வை இருத்தல்.</p> <p>3.1செ.மீக்கு மேல் இரு பக்கவாட்டிலும் (அல்லது) 2 செ.மீக்குமேல் ஒரேபக்கத்திலும் இரத்தக் கோர்வை.</p>		
4.	<p>சீழ் வடிதல்:</p> <p>0-சீழ் இல்லாதிருத்தல்</p> <p>1.பழுப்பு நிறசீழ் வடிதல்.</p> <p>2.பழுப்பு மற்றும் இரத்தம் கலந்தசீழ் வடிதல்</p> <p>3. இரத்தம் தோய்ந்தசீழ் வடிதல்</p>		
5.	<p>ஐதயல் இடைவெளியின் ஆறும் தன்மை 0-தையல்களுக்கு இடையே இடைவெளி இல்லாதிருத்தல்.</p> <p>1-தோல் 3 செ.மீஅளவுபிரிந்துகாணப்படுதல்.</p> <p>2.தோல் மற்றும் தோலடிகொழுப்புமற்றும் சதைஅடுக்குபிரிந்துகாணப்படுதல்.</p>		
	மொத்தமதிப்பெண்		

ரீடாஅளவுகோல் மதிப்பெண்:

0-5 - வேகமாககாயம் ஆறுதல்.

6-10 - தாமதமாககாயம் ஆறுதல்.

11-15 - மிகத் தாமதமாககாயம் ஆறுதல்.



**ANNEXURE – M**

**PLAGIARISM FORM**

This is to certify that this dissertation work titled a comparative study to evaluate the effectiveness of lavender oil sitz bath and cold gel pack application on episiotomy wound among post natal mothers of the candidate E.Mable vinolia with registration number 301623251 for the award of M.Sc (Nursing) in the branch of Obstetrics and Gynecology. I personally verified the urkund.com website for the purpose of plagiarism check. I found that the uploaded thesis file contains from introduction to conclusion pages and results shows 80-100 percentage of plagiarism in the dissertation.

Guide & supervisor sign with seal

## **ANNEXURE – N**

### **EPISIOTOMY, LAVENDER OIL SITZ BATH, COLD GEL PACK APPLICATION- ENGLISH**

Name of the topic: Episiotomy- Lavender oil sitz bath and cold gel pack application

Name of the student teacher: Mrs. Mable vinolia. E

Participants: post natal mothers

Venue: post natal ward

#### **LAVENDER OIL SITZ BATH**

##### **PREPARATION**

1. Provide privacy.
2. Collect all the articles available in the clients unit.
3. Clean the basin with disinfectant solution.
4. Expose the particular area only.

##### **SOLUTION USED FOR PROCEDURE**

Lavender oil mixed with 4 liter of warm water having a temperature of 105<sup>0</sup> to 110<sup>0</sup> fadded with 5 drops of lavender oil for 15-20 minutes twice a day for 3 consecutive days.

##### **ARTICLES NEEDED FOR THE PROCEDURE**

- a) Big basin
- b) Lotion thermometer
- c) Blank

d) Lavender oil

e) Dropper

f) Inflating ring

g) Jug -1

#### **PROCEDURE FOR LAVENDER OIL SITZ BATH**

<b>S.NO</b>	<b>PROCEDURE</b>	<b>RATIONALE</b>
1.	Explain the procedure to the mother.	To get her co operation.
2.	Wash hands	To prevent cross infection.
3.	Collect all articles to the right side of the mother and Provide privacy.	
4.	Pour the 4 liters of hot water into the basin and check the temperature of the water (105 °-110 °F) by lotion thermometer.	
5.	Then add the 5 drops of lavender oil by the dropper into the basin.	
6.	Inflated ring placed in the bottom of the basin for support.	Ring provide cushion between bottom of basin and skin.
7.	Instruct the mother to empty the bladder	To prevent urge to void
8.	Ask the mother to remove the dressing and wash the perineal area properly.	Dressing may loosen and obstruct drain and interfere with cleaning action of water.
9.	Assist the mother to immerse the perineal area into the basin for 15-20 minutes duration.	Minimize the risk of fall.
10.	Wrap the blanket around the shoulders.	To prevent exposure and chilling.

11.	Do not leave the mother alone in the basin.	To prevent falling.
12.	If the mother complains of fainting or weakness, assist her out of the bath dry her and allow to lie flat in the in the bed, until the normal circulation reestablished.	
13.	Dry the area and assist mother in wearing clothes.	Drying the part gently prevent skin maceration
14.	Provide comfortable positions and ask for any complaints to the mother.	Promote comfort and show respect for individual
15.	Clean the basin for next use.	Prevent the transmission of infection.
16.	Replace all articles.	Verify the appropriateness of nursing care.
17.	Wash hands.	To prevent infection.
18.	Wound healing was assessed after two times of intervention at the end of the 3 <sup>rd</sup> day.	To find out the wound healing level.
19.	Documentation: time, date, mother activity and client reaction.	Communicate pertinent data to other members of treatment team.

## **COLD GEL PACK APPLICATION**

### **Cold Compress:**

It is a local moist cold application. It may be sterile or unsterile. Sterile cold compresses are applied over open wounds or breaks in the skin. Cold compresses are made out of folded layers of gauze, lint piece or old soft linen, wring out of cold or ice water or in some evaporating lotion.

### **Indication:**

- Relief of pain.
- Controlling hemorrhage.
- Treating early stages of burns.
- Prevention of gangrene.
- Reducing fever.
- Comfort.
- Decrease circulation and bleeding.

### **Article Required:**

- Large basin with ice.
- Small basin with cold water.
- Gauze pieces or small towels.
- Waterproof pad.
- Bath towel.

**Procedure:**

S.NO	PROCEDURE	RATIONALE
1.	Explain the procedure to the client	To get her co operation.
2.	Wash hands	To prevent cross infection.
3.	Place the mother in comfortable position.	Promote comfort and show respect for individual.
4.	Instruct the mother to empty the bladder	To prevent urge to void.
5.	Wrap the cold gel pad with cover.	To avoid chill
6.	Keep the cold gel pad at the episiotomy site.	
7.	Check the area every 5 minutes.	
8.	Change the compress every 5 minutes or when it becomes hot.	
9.	Remove the compress after 20 minutes.	
10.	Put the area dry with a bath towel.	Drying the part gently prevent skin maceration.
11.	Make client comfortable.	
12.	Clean the equipment and place it in the proper place. Discard the used articles.	Prevent the transmission of infection and use for next use.
13.	Wash hands	To prevent cross infection.
14.	Document the care-time, site, duration of the application.	Communicate pertinent data to other members of treatment team.

**Contraindications:**

- Bluish, purple appearance in the skin or mucous membrane.
- Numbness.
- Pain due to contracted muscle.
- Lowered body temperature, shivering.

## ANNEXURE – O

### EPISIOTOMY, LAVENDER OIL SITZ BATH,COLD GEL PACK APPLICATION- TAMIL

#### பிறப்புறுப்பில் இடப்பட்டதையல்

வரையறை:-

இது ஒரு சிறுஅறுவைசிகிச்சைஆகும்.கருவுற்றதாயின் பிறப்புறுப்பில் உள்ளகருவாய் கீழ்பகுதியைகுழந்தைபிறப்புஎளிதாகவும் மற்றும் ஆசனவாய் மற்றும் பெண் குறியின் கீழ் பகுதிஅதிகமாககிழியாமல் இருக்கவும் உபகரணங்கள் பயன்படுத்திதுண்டிக்கப்படுகிறதுஆகும்.

காரணங்கள்:-

- தாய் அல்லதுசேயிற்கு மூச்சுதிணறல்
- குழந்தைபருவத்திற்குமுன்பேபிறத்தல்
- குழந்தையின் பின்பகுதிநிலையில் இருத்தல்.
- குழந்தையின் தலை இறுக்கமானதாயின் குறியினால் சேதமடைதல்
- பெரியகுழந்தை
- தாய் மிகவும் சோர்வாகஅல்லதுமுக்குவதற்கு இயலாமை.

வகைகள்:

பிறப்புறுப்புக்கீழலின் ஆழம் நான்குவகைப்படும்.

1. முதல் கோணம்:

பிறப்புறுப்பின் தோல் மட்டும் துண்டிக்கப்படுதல்.

2. இரண்டாம் கோணம்:

இதில் தோல் மற்றும் தசைஉள்ளடங்கும். கருவாய் மற்றும் ஆசனவாய்க்கு இடையேதுண்டிக்கப்படுதல்.

3. மூன்றாம் கோணம்:

பிறப்புறுப்புதோல்,தசைமற்றும் மலக்குடல் சுருக்குத் தசைதுண்டிக்கப்படுதல்.

4. நான்காம் கோணம்:-

பிறப்புறுப்புதோல்,தசை,மலக்குடல்,சுருக்குத்தசைமற்றும் ஆசனசுவர் மூலம் துண்டிக்கப்படுதல்.

பக்கவிளைவுகள்:

1. நோய்த்தொற்று.
2. அதிகவலி
3. அதிக இரத்தப்போக்கு
4. உடலுறவின் போதுவலிஏற்படுதல்.
5. திசுசேதம்



## லாவண்டர் எண்ணெய் இடுப்புகுளியல்

**வரையறை :-**

இடுப்புகுளியல் என்பதுஒருவகைசிகிச்சைகுளியல் ஆகும். லாவண்டர் எண்ணெய் 4 அல்லது 5 சொட்டு 105 □ 110 அளவு சூடானநீரில் இட்டு இடுப்புமற்றும் ஆசனப் பகுதியை பாத்திரத்திலுள்ள நீரில் மூழ்கும் படி அமர்வது ஆகும். இந்தமுறை 15-20 நிமிடங்கள் செய்யப்படுகிறது.

**பயன்படுத்தும் பொருட்கள்**

- 1.பெரியபாத்திரம் (பேசின்)
2. கூழ்மவெப்பநிலைமானி
3. போர்வை
4. லாவண்டர் எண்ணெய்
5. மிதக்கும் ரப்பர் வளையம்
6. ஜாடி
7. துளிசொட்டி

**செய்முறை**

1. தாயிடம் செய்முறை பற்றி விளக்கமாக கூற வேண்டும்.
2. கைகளை கழுவுதல் வேண்டும்.
3. சேகரித்த செய்முறைக்கு தேவையான பொருட்களை தாயின் வலதுபக்கத்தில் வைக்கவேண்டும்.
4. தனியானஅறையில் பாதுகாப்பாகசெய்முறைசெய்யவேண்டும்.
5. ஒரு அகன்ற பெரிய பாத்திரத்தில் 4 லிட்டர் சுடு நீர் (105° - 110°) ஊற்றவேண்டும்.
6. பிறகு 5 சொட்டுலாவண்டர் எண்ணெய் துளிசொட்டு மூலம் பாத்திரத்தில் உள்ள சுடு நீரில் இடவும்.
7. காற்று நிரப்பப்பட்ட வளையம் ஒன்றை பாத்திரத்தின் மேல் வைக்கவும்.
8. தாயினை சிறுநீர் வெளியேற்ற அறிவுறுத்தவேண்டும்.
9. தாயின் பிறப்புறுப்பில் உள்ள பஞ்சு துணியை எடுத்து விட்டு பிறப்புறுப்பை சுத்தம் செய்ய அறிவுறுத்தவேண்டும்.

10. தாயின் பிறப்புறுப்பு பகுதி பாத்திரத்தில் உள்ளநீரில் மூழ்க உதவி செய்யவேண்டும்.
11. தாயின் தோள்பட்டையை சுற்றி பெரிய போர்வை போர்த்தவேண்டும்.
12. தாயினை தனியாக விட்டுசெல்லக் கூடாது.
13. தாயிற்கு ஏதேனும் மயக்கம், சோர்வு ஏற்பட்டால் உடனடியாக பாத்திரத்தில் இருந்து வெளியேற்றி பிறப்புறுப்பை சுத்தம் செய்துபடுக்கையில் இட வேண்டும்.
14. முழு செய்முறைக்கு பிறகு ஆடைகளை அணியசெய்தல் வேண்டும்.
15. சவுகரியமான நிலையில் தாயினை அமரச் செய்து ஏதேனும் புகார் இருக்கிறதா என்று விசாரிக்க வேண்டும்.
16. அகன்ற பாத்திரத்தை அடுத்த பயன்பாட்டிற்கு சுத்தம் செய்யவேண்டும்.
17. உபயோகித்த அனைத்து பொருட்களையும் எடுத்து வைக்கவேண்டும்.
18. கைகளை கழுவுதல் வேண்டும்.
19. பிறப்புறுப்பில் உள்ளதையல் அளவை 3 நாட்களுக்கு பிறகு பரிசோதிக்கவேண்டும்.
20. செய்முறையின் நேரம், காலம், தாயின் ஒத்துழைப்பு அனைத்தையும் ஆவணமாக்கவேண்டும்.

## குளிர் அழுத்தி

இது ஒரு ஈரமான குளிர் பயன்பாடு ஆகும். இதனை சுத்தமான முறையிலும் அல்லது நுண்கிருமி நீக்கப்பட்ட சுத்தமுறையிலும் பயன்படுத்தலாம்.

இந்தகுளிர் அழுத்தத்தின் நேராகவேதோலில் திறந்தகாயங்கள் மீது, அல்லது துணியினை சுற்றியோ பயன்படுத்தப்படுகிறது.

- ❖ வலியைகட்டுப்படுத்துகிறது.
- ❖ இரத்தம் கசிவினை
- ❖ ஆரம்பகட்டதீக்காயசிகிச்சைக்குபயன்படுகிறது.
- ❖ காய்ச்சலைகுறைக்கிறது.
- ❖ புண்களைஆற்றுகிறது.

## செய்முறை

1. தாயினிடத்தில் செய்முறையை விளக்க வேண்டும்.
2. கைகளை கழுவுதல் வேண்டும்.
3. தாயினை சவுகரியமான நிலையாக அமர்த்த வேண்டும்.
4. குளிர் ஜெல் திண்டை ஒரு மென்மையான துணிகொண்டு மூட வேண்டும்.
5. பிறகு பிறப்புறுப்பில் உள்ளதையல் போட்ட இடத்தில் இந்த துணி சுற்றியகுளிர் திண்டினைவைக்கவும்.
6. 5 நிமிடங்களுக்கு ஒரு முறையும் குளிர் ஜெல் திண்டினை சரிபார்த்து குளிர் குறைந்திருப்பின் மாற்றவும்.
7. 20 நிமிடங்கள் கழித்துசெய்முறையினைநிறுத்தவும்.
8. ஒரு குளியல் துண்டு பயன்படுத்தி பிறப்புறுப்பை உலரவைக்கவும்.
9. மீண்டும் தாயினை சவுகரியமாக நிலையில் அமர்த்தவேண்டும்.
10. செய்முறைக்கு பயன்படுத்திய உபகரணங்களை சுத்தம் செய்துசரியான இடத்தில் வைக்கவும்.
11. செய்த செய்முறையின் நேரம், காலம், தாயின் நிலையினை ஆவணமாக்க வேண்டும்.

பின் விளைவுகள்:

- ❖ தோல் நீலநிறமாதல்
- ❖ தசைவலி
- ❖ தோல் உணர்வின்மை
- ❖ நடுக்கம்,உடல் வெப்பநிலைகுறைதல்.

## **ANNUXURE – P**

### **PHOTOGRAPHS**

#### **EXPLAINING PROCEDURE**



## DATA COLLECTION



## DATA COLLECTION



## POST TEST REEDA SCALE ASSESSMENT

